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THREE RECENT OIL SPILLS

HEARING

BEFORE THE

SUBCOMMITTEE ON
ENVIRONMENTAL PROTECTION

OF THE

COMMITTEE ON
ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

ONE HUNDRED FIRST CONGRESS

FIRST SESSION

ON

OIL SPILLS IN THE COASTAL WATERS OF RHODE ISLAND, THE DELAWARE RIVER, AND THE HOUSTON SHIP CHANNEL

JULY 13, 1989

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THREE RECENT OIL SPILLS

THURSDAY, JULY 13, 1989

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON ENVIRONMENTAL PROTECTION,
Washington, DC.

The subcommittee met, pursuant to notice, at 9:39 a.m., in room 406, Dirksen Senate Office Building, Hon. Max Baucus (chairman of the subcommittee) presiding.

Present: Senators Baucus, Chafee, Simpson, Durenberger, Warner, Jeffords, Humphrey, Moynihan, Mitchell, Lautenberg, Breaux, Graham, and Lieberman.

OPENING STATEMENT OF HON. MAX BAUCUS, U.S. SENATOR FROM THE STATE OF MONTANA

Senator BAUCUS. The subcommittee will come to order.

Just three months ago the Subcommittee on Environmental Protection convened to look at the disaster caused by the Nation's largest oil spill at Prince William Sound. What we found was an unreasonably slow, confused, and inadequate response by industry, as well as by government, that failed miserably in containing the spill and preventing the damage.

With the public's attention in recent months focused on how the oil shipping industry does business, I would have thought that the industry would have gone to great lengths to clean up its act. The industry, however, seems to have done nothing of the kind, and so we meet today in the wake of three more major spills that dumped hundreds of thousands of gallons of oil in Rhode Island's coastal waters, the Delaware River, and Houston Ship Channel.

Some may describe this number of accidents within a 24-hour period as bizarre—a freak occurrence. But they suggest to me, instead, that spills are just an accepted cost of doing business for the oil shipping industry. Frankly, it seems to me that the industry has decided that it is cheaper to spill and pay for its cleanup than it is to prevent spills and develop effective techniques to contain them.

Someone else has described response to these spills as a success. Responses were far more prompt and less chaotic than the *Exxon Valdez* effort, but they were not a success.

It took only four hours to get two booms in place around the *World Prodigy* off the Rhode Island coast, but by that time the spill had spread to a slick measuring five miles on a side. Twenty-four hours later, the oil had reached 20 miles north into Narragansett Bay. One day after the spill in the Delaware River the oil had been

carried 15 miles downstream, and the Delaware Secretary of the Environment said that the standard response failed.

We have been lucky so far. Nature has been forgiving of our careless disrespect for the environment. In Rhode Island and Texas, favorable winds kept oil from doing greater damage. We will not always be so fortunate.

The spills of three weeks ago clearly show that we are not using, nor have we developed, technology capable of containing spills of less than 1 million gallons, let alone spills the size of the *Exxon Valdez.*

We have asked representatives from the American Petroleum Institute here today to discuss their task force report, which recommends that the industry establish regional centers to respond to oil spills, change the operation of its tankers, and develop new methods to control and mitigate spills.

I'm glad that the oil industry recognizes its responsibility to make sure that we never have another tragedy like the one that was allowed to happen in Alaska. But I, for one, am not willing to rely on the oil industry's voluntary efforts, which appear to be inadequate at the start and may very well ebb with time.

I am disappointed, for example, that the API report does not call for a response center in Valdez or anywhere else in Alaska. Response to another oil spill up there will be left to the Alyeska Pipeline Service Company—the same company that was unprepared and unable to react quickly and effectively to the *Exxon Valdez* spill. Alyeska was described just last week by the Wall Street Journal as "A consortium that has long pursued a policy of cutting corners on the environment."

According to that same article, "Alyeska now contends that it wasn't actually required to be able to do the things it said it was able to do in its contingency plan."

I certainly will not be willing to again rely on Alyeska's voluntary efforts and promises.

It also is very disturbing that in planning for its response to oil spills the API report assumes that it will be smaller than the *Exxon Valdez* spill and bases the predicted response on the best case of no weather delays, immediate availability of transportation, daylight hours, and a long summer day. If the Prince William Sound oil spill taught us anything, it taught us that contingency plans must prepare for the unexpected—for the worst case, not for the best case. We don't call them "certainty plans" or "routine plans" for good reason.

What the three recent spills teach us is that any oil spill, no matter how quick we respond to it or how well we contain it, is going to harm the environment. So preventing oil spills is more important than containing and cleaning them up quickly.

There is one more lesson of the past several months: there is more myth and wishful thinking than fact and realism in industry and Coast Guard statements about oil spills. We were promised that a catastrophic oil spill couldn't occur in Prince William Sound. It did. We were promised that it would be cleaned up quickly with minimal damage to the environment. It wasn't. We were told that major oil spills are a rarity. They aren't. We had three in the space of 24 hours. We were promised that cargo tanks—the *Exxon*

Valdez—were squeaky clean. They weren't. We now have a ten-mile slick off California's coast.

I look forward to hearing what our witnesses have to say this morning, but I approach it with a healthy dose of skepticism.

I now turn to the ranking member of our subcommittee, Senator Chafee.

OPENING STATEMENT OF HON. JOHN H. CHAFEE, U.S. SENATOR FROM THE STATE OF RHODE ISLAND

Senator CHAFEE. Thank you very much, Mr. Chairman.

First of all, I want to stress how grateful we are to you for holding these hearings. Ocean oil spills aren't a clear and present worry in Montana. I recognize that. Thus, we are doubly appreciative of your calling these hearings in response to our requests—particularly in connection with the Narragansett Bay situation.

Mr. Chairman, the number of oil spills we are experiencing in this country and the damage they cause to the environment is clearly unacceptable. This is especially true when we consider that in 1988 the Coast Guard recorded over 6,700 spills. That is a lot of spills. Ten of them involve spills of more than 100,000 gallons. No more than 10 percent of the spilled oil was ever recovered. That was a dazzling statistic. We had ten spills of more than 100,000 gallons, and none of these spills had more than 10 percent of the oil ever recovered. So it is clear that the oil industry is not able to handle the spills that occur.

The reason for the spate of oil spills that occurred in Rhode Island, Delaware, and Texas within 12 hours on June 23d and 24th are complex—each of them seem to involve some sort of pilot error—but the are lessons they teach us apply across the board.

First, the current technology for responding to oil spills is primitive. We saw this in Rhode Island. The skimmers don't work if the oil is too thin, as it was in our situation, or if the oil is too thick, as it was in Alaska. Dispersants can pose a significant threat to aquatic life. We must invest substantial sums in developing modern and efficient technology to respond to oil spills.

Secondly, competition in international shipping has caused many companies to register under flags of convenience, such as Liberia and Panama. We all know that. These nations have almost no restrictions on the use of low-cost, untrained labor from third world nations.

The *World Prodigy*, which spilled 420,000 gallons in Narragansett Bay is a case in point. It suggests that Congress perhaps should require better-staffed and better-trained crews on tankers entering our waters.

The Coast Guard did a superb job in Rhode Island, and we are very grateful to them, and I want to acknowledge that right now. However, it does seem to me its response capability should be bolstered. One oil spill strike force for the entire East Coast and Gulf States is not adequate.

The Rhode Island spill occurred late in the afternoon, so the evening hours were used for transporting the equipment up from Alabama. If the spill had occurred earlier in the day, equipment would not have arrived until the evening, when there would have

been great difficulty rigging the booms in darkness. We have learned that the first few hours are the most critical ones in containing spills from these tankers. Also, the Coast Guard's ability to monitor vessel traffic should be enhanced, I believe.

Next, the Clean Water Act fund for oil spill response is almost bankrupt and barely covered the cost of the Rhode Island spill. We are clearly in need of a national funding mechanism to pay for oil spill cleanups and to compensate those who suffer economic losses from these spills.

In emphasizing our need to improve our ability to respond to spills, we mustn't lose site of the fact that prevention should have the highest priority. What are some of the things we might consider?

There has been talk of double hulls on tankers or valves to slow leakage. Next, barring tankers from dangerous routes. I like to think of these tankers as transporting hazardous cargo. Should we let them go wherever they want? Should they be able to come into Block Island Sound and into Long Island Sound? Perhaps we should build mooring terminals five miles or more offshore to allow tankers to unload oil into pipeline connections that would carry it ashore. It has been proven that pipeline accidents, in contrast to tanker accidents, are extremely rare.

We've got to increase the penalties on these tankers that have these accidents. It is untenable to think that under the Clean Water Act a major oil spill could result in a fine as little as $5,000. Shippers ought to know that the price of spilling oil will be high—extremely high.

Perhaps the most important way of preventing oil spills is to reduce our dependence on oil. Obviously, that is a long-range program. We must adopt, it seems to me, a national policy that will move us away from increasing dependence on fossil fuels—not just to reduce oil spills, but to prevent an array of environmental consequences, including the greenhouse effect.

Some have suggested the way to do that is to bar offshore oil drilling rather than reducing consumption. That would only have the effect of increasing foreign imports, which would, in turn, increase rather than decrease the likelihood of oil spills.

So, Mr. Chairman, again I want to thank you for holding these hearings. We look forward to what the witnesses have to say.

Senator BAUCUS. Thank you.

Do any other members of the committee have any statements they would like to make?

Senator LAUTENBERG. Yes.

Senator BAUCUS. Senator Lautenberg.

OPENING STATEMENT OF HON. FRANK R. LAUTENBERG, U.S. SENATOR FROM THE STATE OF NEW JERSEY

Senator LAUTENBERG. Thank you very much, Mr. Chairman. I, too, want to compliment you for organizing this hearing and holding it so promptly.

In response to the oil spill tragedies that we have seen in the weeks and months following the massive *Exxon Valdez* spill, the Nation was focused on the terrible environmental destruction in

Alaska. I just returned from my second trip up there. I was up in Alaska within a few days of when the incident first took place, and I was up there just two weeks ago to take a second look and see what kind of progress we have made. There has been a lot of effort.

There is virtually a military engagement in terms of size and commitment up there. There are almost 10,000 people working to clean up this spill. They are down, in some instance, to paper towels and rubbing rocks manually. It is a pretty abysmal prospective when you look at it. There has been a lot of work that has been going into it and I, too, want to give credit to the Coast Guard for having mustered the effort that they did, for having coordinated all of the parties as they have, and for the incredible effort that they gave it from the time that they were notified of the accident. There is, however, a serious shortcoming in the system, as we have seen.

That oil spill was a shocker, but we have been left with the tremors of three more just a few months later. Those spills remind us that where there is oil there is risk. The risk can be anywhere—Alaska, Rhode Island, New Jersey, Texas. Our task is to minimize—we can't eliminate—the risk.

The largest of the three spills hit close to home for this Senator. There were 300,000 gallons of heavy crude that spilled from the *Presidente Rivera* in the Delaware River, threatening sensitive coastal areas in New Jersey, Pennsylvania, and Delaware.

In many ways we were lucky. While the ship's cargo was 18 million gallons, less than 1 million gallons were lost. The weather was cooperative. The spiller accepted full responsibility. The environmental impact could have been much worse, but the *Presidente Rivera* reminded us that spills on the Delaware, as elsewhere, have become all too common.

The Delaware River is the single largest point of entry for foreign oil into the United States. It receives over 360 million barrels annually. According to a Coast Guard report, 46 tankers, along with 170 other ocean-going vessels, use this waterway each month. Between 1980 and 1986 there were 102 separate incidents on the Delaware involving vessels carrying oil—that's more than 15 a year, more than 1 a month. To my thinking, that indicates that a change is needed. By examining the incidents that have occurred, we can hope to figure out what changes will produce the best result.

I have asked the Coast Guard to assess the need for VTS—vessel tracking control system—on the Delaware. If VTS will help to reduce the threat of oil spills, we ought to have it.

Today we are going to hear from the Coast Guard, from the New Jersey DEP, and from others on the three spills that occurred that fateful weekend, and we will try to find out what happened and what the responses were. With that information, perhaps we can start to make the improvements that are necessary and can get about the job of better protecting our rivers, our shoreline, and our beaches from the threat of oil spills.

Thank you very much, Mr. Chairman.

Senator BAUCUS. Thank you very much, Senator Lautenberg.

Senator Lieberman.

OPENING STATEMENT OF HON. JOSEPH I. LIEBERMAN, U.S. SENATOR FROM THE STATE OF CONNECTICUT

Senator LIEBERMAN. Thank you, Mr. Chairman. Thank you for convening this hearing on these three most recent oil spills, which make the basic point that what happened in Alaska was not just a curious accident or exception to the rule. The reality is that we have a real problem here. And, as the statistics that you and others have cited this morning indicate, the truth is that we have had it for a long time, but we have just swept it under the rug—or pushed it under the water.

We are carrying enormous quantities of oil across our waters. I am startled to learn that in the last year for which there are statistics, which I believe is 1985, 5.5 billion gallons of oil passed through Long Island Sound—just that one little, beautiful body of water. When you're dealing with humans in charge of that oil, there inevitably are going to be mistakes and, therefore, accidents. And those accidents are going to have consequences for all of us.

The more I get into this, the more I realize a couple of things. I'm just going to state them very briefly. One is that accidents will happen. Secondly, we are not prepared—neither we in the government nor the oil industry—to clean up from those accidents.

The more I talk to experts, the more I come to appreciate that once a spill occurs, the prospects of recovering even 10 percent, let alone 20 percent, of the oil spilled are essentially nil. The damage is going to occur once the spill happens. Technology is primitive. We need to invest more money to improve our technology to respond to oil spills. The Coast Guard needs more support—more equipment to respond to the tragedies when they occur.

If I may, I just want to focus for a minute on what we can do in the short run, and that is, as I believe Senator Chafee indicated, to toughen up our laws essentially to grab the attention of the oil industry. It is like that old story about hitting the mule with the 2 x 4 just to get its attention.

The oil industry mule needs to understand that there are very severe consequences that relate to an oil spill. Why do we need to teach them that lesson? So hopefully they will take every step humanly available to avoid an oil spill because, as I have said just a moment ago, the best response to a spill is prevention of any spill, because once it occurs the environment and all of us are going to suffer.

There are several bills before this committee which I'm optimistic will be reported out that will make clear the responsibilities that the oil industry has. These spills that are the focus of this hearing today, Mr. Chairman, reveal a few of the deficiencies.

I wonder whether the owners of that Greek tanker which spilled the oil off Rhode Island would have spent a little more money and would have put a little more pressure on that captain to indicate to him the importance of relying on a local pilot to guide him through the unfamiliar waters off Narragansett Bay, or whether the pilot, himself, would have been just a bit more cautious if he knew that he would have been personally liable—fined, jailed, punished—for negligent action.

The same is true in the Delaware spill. The reality is: I gather that Sun Oil is leading a consortium of companies involved there to pay for the cleanup, but there is absolutely nothing in the existing Clean Water Act that would have allowed the government to force those companies to pay for that cleanup if they didn't want to do it. We've got to change that law.

In the Rhode Island spill, I understand that State officials are concerned that the fuel on board the Greek tanker may be exempt from the definition of a pollutant under State law, which raises concerns about the ability to recover fully the costs and damages that have been suffered as a result of that accident.

So the bottom line here, as it was with the Valdez oil spill, is that these three spills left us with two kinds of messes: one in the water, and the other on our law books.

The good news, in that sense, from the bad news of these spills, is that we in the Congress, as difficult as this problem is, know that there is one thing that we can do, and that is to adopt laws that are tougher to send a message to people involved in the oil industry that there will be severe consequences to negligence which affects all of us.

Mr. Chairman, I wish I could stay this morning. Unfortunately, I am on the Impeachment Trial Committee, and I do wish to leave with you, if I may, some questions for Admiral Yost. I would appreciate written answers at his convenience.

Thank you very much.

[The questions referred to by Senator Lieberman follow:]

QUESTIONS FOR ADMIRAL YOST

Question

What is being done within the federal government to improve the state of technology available to fight an oil spill? Have you set aside money devoted to developing these technologies? Has EPA reopened its Edison, New Jersey, facility designed to develop modern day equipment to fight oil spills which it closed in the early 1980s? Has the Coast Guard started up its research program which it abandoned in the early 1980s?

Question

Which governmental entity do you feel can best regulate when local pilots must board vessels? Should the Coast Guard exercise this authority as in Prince William Sound, or should state and local jurisdictions retain the authority as in Rhode Island?

Question

I am concerned that federal or state law may have different requirements for pilots on board a barge or tug than the requirements governing tankers. I know that in Long Island Sound a large amount of oil is carried on barges and that in the Hudson River the majority of spills in the last 15 years have involved barges. Admiral, are you concerned that federal and some states' requirements governing inland barges (particularly with respect to requirements for pilots to be onboard) may be more lenient than requirements for tankers? Do you have any suggestions for how Congress might address these differences in upcoming legislation?

Question

What specific proposals do you recommend that Congress adopt to tighten training and licensing requirements for tanker captains?

Question

Under Rhode Island law, fuel oil number 2, which was the content of the spilled oil, apparently is not classified as a "pollutant" under state law. Accordingly, there is concern that the tanker is not subject to civil and criminal penalties under state law. The same concern may exist under the Clean Water Act, although this needs to be investigated further. Has the Coast Guard had an opportunity to examine whether this is yet another loophole in the liability scheme governing oil spills which Congress or the states must address?

Question

What factors were considered by the Coast Guard in determining not to federalize the spills in Delaware and Texas? Was the basis your understanding that the government has an obligation to give the owner/operator the opportunity to do the cleanup? What information did you have about the capacity of the owner/operator to perform the cleanup?

[NOTE: Responses to the above questions were not received by time of publication.]

Senator BAUCUS. Thank you very much, Senator. We appreciate the work you're doing on the Impeachment Committee. That's not service that each of us are rushing to provide, and we thank you for providing that service. Thank you, Senator.

We have several Members of Congress who are now here before the committee. Let me introduce them and have them all come to the witness table. I call Senator Bill Roth, Congresswoman Claudine Schneider, and Congressman Machtley.

I am informed, too, that Senator Pell is on his way and he will be here shortly.

Bill, why don't you begin?

STATEMENT OF HON. WILLIAM V. ROTH, JR., U.S. SENATOR FROM THE STATE OF DELAWARE

Senator ROTH. Thank you, Mr. Chairman. I appreciate the opportunity of being here today in the wake of the four recent oil spills. I appreciate the objectives of this subcommittee, as well as those of its chairman and ranking minority member.

As one spill is a tragedy, words cannot describe the devastation of three, I'd like to focus my remarks on the spill that concerned my home State of Delaware. As you said, Senator Lautenberg, while we may feel that we were somewhat lucky, if one can be lucky under these circumstances, I feel we can and should look upon the Delaware and other spills to assess what might be done to prevent future re-occurrences that could easily be even more tragic.

Mr. Chairman, nothing is more important than to devise better preventive measures for the future. In the wake of the spill, I flew to the site and examined by air the catastrophe that had fallen on my State and on the river and bay that bears its name. I saw the destruction made possible by a momentary error in judgment, human negligence, and the lack of adequate preparation and precautions.

I was moved by the force of human will and manpower that responded to the crisis as Delawareans turned out in large mass to pick up basketball-sized globs of oil and place them in plastic bags.

I was moved by their care for the Canadian geese and other wildlife and the time that my people spent in cleaning up our precious wetlands.

According to the Coast Guard, we have cleaned up about 75 percent of the spill. I hope that is correct. But, unfortunately, much of the remaining oil may take up to 10 years before the river, bay, and wetlands return to a semblance of their former conditions.

Overall, about 130 oiled birds were captured, cleaned, and released, thanks to Lynn Frink and her Tristate Bird Research and Rescue Organization. But, as faithful as these efforts were, Mr. Chairman, I was disappointed by the lack of preparation, the subsequent ineffectiveness of the ship's response team completely—ill prepared to deal with the kind of oil that was discharged. Rather than contain the spill, the equipment was pushed aside by the heavy oil. Much of it slipped under the booms and clogged the equipment of the skimming vessels.

As I watched the containment of only a fraction of the 310,000 spill, I considered what might be done to prevent future tragedies of this kind, and several ideas come to mind that I would like to recommend this morning.

First, we must increase safety measures in our tankers and cargo carriers that will prevent, contain, and limit spills of hazardous materials in the event of an accident. Like seatbelts in cars, no one hopes that they will ever be needed, but accidents do happen and precautions save lives. Whether these precautions on tankers include double hulls, double bottoms, or other containment devices, they should be located along the periphery of the sides and along the entire bottom of the tanker rather than the 30 to 45 percent coverage presently required.

Second, we should ensure there is adequate equipment in each port in the event of disaster such as we recently suffered.

Third, my thought was that as a fire truck with an empty water tank or a fire truck that arrives too late is useless, so, too, is an industry response team that is either ill equipped or inexperienced.

Mr. Chairman, once a spill has occurred, time becomes the critical element as to the amount of death and destruction it causes. In Delaware, as in the other States where the spills occurred within 24 hours of each other, far too much time elapsed between the spill and the response. I'm sure there is a multitude of reasons why this was allowed to occur, and perhaps this subcommittee can look into the causes and future remedies; however, one of the reasons was, unfortunately, due to the time wasted to assess liability.

I believe it would further our objectives if we were to support measures that require immediate and effective response and worry later about who is liable. It is on this subject of liability I'd like to reference my last point.

Delaware, like many States, has its own liability laws in the event of an oil spill. As a matter of fact, with the recent spill the State filed suit against the owner of the Presidente Rivera and the captain. Any legislation that we may enact here in Washington should not preempt the right of our States to seek just compensation, and there should be no limits on the liability of the responsible parties.

As well, any legislation passed by Congress should impose strict liability without regard to fault. This liability should extend to both the owners and operators of these vessels, just as they do to owners and operators of continental shelf leases and owners and operators of the vessels which transport these oils.

Finally, Mr. Chairman, we should be explicit on who is eligible to recover from damages due to spills. Without argument, they should include both coastal area property owners and other parties, such as fishermen, who suffer economic damages.

As I said before when I sponsored the successful liability amendment to the Outer Continental Shelf Management Act of 1978, it makes no difference that a fisherman has no property right in uncaught fish or that a resort owner has no property right to lost business; each should be able to recover damages.

Mr. Chairman, I look forward to working with you as you proceed in this important area.

Senator BAUCUS. Thank you very much, Senator.

We are also honored this morning to have the Chairman of the Foreign Relations Committee before us. Senator Pell, we look forward to your testimony.

STATEMENT OF HON. CLAIBORNE PELL, U.S. SENATOR FROM THE STATE OF RHODE ISLAND

Senator PELL. Thank you very much, indeed, Chairman Baucus and colleagues.

I am very grateful to be here with you. As you know, our Foreign Relations Committee will be holding hearings this afternoon on the oil spills. Our focus, though, will be on the international aspects of the cleanup compensation and vessel safety.

I'd like to congratulate you on the line of witnesses that you've got and particularly to join you in welcoming Arthur Markos, the Chief of Staff for Governor Edward DiPrete of Rhode Island.

The State of Rhode Island had personnel on the scene, and their foresight and cunning and expert knowledge formed a key part of the coordinated response to the spill. I know the testimony of Governor DiPrete and Mr. Markos will be exceptionally helpful.

As you know, the entire Rhode Island congressional delegation was involved within hours of the spill. Senator Chafee and Representative Schneider and Machtley were all on hand and did all they possibly could to help. Those of us who live in Newport, as does Congressman Machtley and myself who have houses two miles away from the spill, were particularly conscious of it.

I'd like to give particular credit to the Coast Guard. It made me very proud to be a member of the Coast Guard Reserve when I saw what they did to contain and mitigate the spill. Within a few hours they had their personnel on the scene, they had their booms on the way, and I think that Captain Williams did a remarkable job of pulling things together.

We were lucky, too, as we all know, that the weather favored us, that the fuel evaporated readily, and that the Coast Guard was able to federalize the spill rapidly. If it had been number six fuel oil and not number two, we would have been in dreadful shape.

I boarded the *World Prodigy* tanker twice during the ensuing days after she crashed onto Brenton Reef and talked with both the captain and the owner's representatives. The captain was very open and very honest in admitting that the mistake was his and a dreadful mistake, but he went to the wrong side of the buoy and he realizes that. Fundamental errors in seamanship were made at that time.

One thing that I must say bothers me a little bit was, having done some damage to our bay, their lack of willingness to have the ship mended or repaired in our bay. We tried to bring the business to Narragansett Bay, and I think the owner indicated that he did not have any intention of doing so.

Obviously, fundamental errors in seamanship were made. It is my belief, though, that we should focus on how to prevent similar errors in the future and how to assure they cause the least damage possible when they occur.

Our Rhode Island spill and the additional spills that have occurred recently—three major ones within a 24-hour period—along

with the environmental threat that they represent, are of vital concern to our nation.

I thank you for your work and for holding this hearing. I am delighted that Senator Chafee is cochairman and ranking member. I wish you success in your hearing.

I see all of us who are here basically come from seaboard States, whether it is New Jersey or Rhode Island.

Senator LAUTENBERG. Not Senator Baucus.

Senator PELL. You're right. I forgot for a moment.

Not even a Great Lake.

Senator BAUCUS. Thank you, Senator.

Senator PELL. Thank you.

Senator BAUCUS. It is an honor to have two Rhode Island House Members here—the entire Rhode Island delegation. It is quite an honor for this committee.

Senator PELL. Could I add one further sentence which I omitted? Luther Blount, a shipbuilder in our State, had a very ingenious idea with regard to relieving the air pressure which, when done, apparently means that the oil, instead of leaking, stays in the ship. I hope that in the course of your work that you will be examining his proposal.

Senator CHAFEE. Yes, Senator. I will do that. Thank you for reminding me.

Senator BAUCUS. Thank you, Senator.

Congresswoman Schneider.

STATEMENT OF HON. CLAUDINE SCHNEIDER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF RHODE ISLAND

Ms. SCHNEIDER. Thank you, Mr. Baucus.

Let me remind you that the potentiality of the global warming trend may also put you in a situation where some day in Montana you may have ocean-front property, too.

We thank you for your concern and observance at this moment.

Senator BAUCUS. I appreciate that, Congresswoman. As I have said several times before, we may not have an ocean in Montana, but we do have the largest natural fresh-water lake west of the Mississippi, which is a wonderful place to sail. We hope, too, that the global warming trend does not proceed quite as quickly as some fear.

Ms. SCHNEIDER. I thank you, Mr. Chairman, for convening this hearing, and certainly thanks to my colleague from Rhode Island and the ranking Republican, Mr. Chafee, who has been a national leader when it comes to sensitivity and action on environmental initiatives.

I would like to share with you, from the capacity of wearing two hats in the House of Representatives, one as a member of the Merchant Marine and Fisheries Committee whereby I am on the Fish and Wildlife Subcommittee and the Oversight and Investigations Subcommittee, but also my position on the Science and Technology Committee where, perhaps, we can elaborate a little further on the technology that is currently employed for cleanup purposes.

My purpose here today is to share with the Senate some of the legislative initiatives that are taking place in the House. I'm hope-

ful that the Senate, too, will move in conjunction with the House to get some legislation on the books as quickly as possible.

Let me give you the relevance, first of all, to the State of Rhode Island. At 4:40 p.m. on Friday, June 23d, the Greek-flagged tanker *World Prodigy* sped past the State pilots' station and went straight onto the rocks at Brenton Reef, spilling about 420,000 gallons of number 2 heating oil. This was the second largest oil spill in New England's history.

The ship was en route from Bulgaria to the Port of Providence, and it entered Rhode Island waters without—and I underline "without"—the State-required pilot on board. Through a series of inexcusable human errors, including incomplete charts of the area, the 117,000-ton vessel wound up hitting one of the most visible and well-marked navigational hazards in New England. Regrettably, this disaster is all too frequent in U.S. waters, as Senator Chafee pointed out in his opening statement.

Yes, we were fortunate in Rhode Island. Mother Nature was on our side and we were saved because of virtually no wind, shining sun, and the fact that the oil was thin, although highly toxic.

These conditions, combined with the superb response by the Coast Guard and the State, enabled us to control the oil's impact on our very fragile ecosystems. Now, what we need to be concerned with is that the next time we may not be so lucky, and that is why I have introduced legislation H.R. 2872, referred to as the "Narragansett Bay Protection Act of 1989," which relates specifically to Federal pilot requirements.

This bill recognizes the fact that 170 tankers pass through Narraganset Bay en route to the Port of Providence every year, and that hundreds of other tankers pass through Block Island Sound annually en route to other ports.

The bill recognizes that heavy tanker traffic goes across an area which is the lifeblood of our State of Rhode Island, and it requires that a Federally-licensed pilot be on board all tankers and barges entering, departing, and traveling through Narraganset Bay and Block Island Sound.

Now, the bill applies only to Federal waters, which is outside of the three-mile limit, and it would not preempt any State pilot requirements. Had this legislation been in place on June 23d, the *World Prodigy* would have had a Federally-licensed pilot on board well before the apparent mix-up at the State pilot station and well before it reached Brenton Reef.

This bill applies to all tankers and barges carrying either oil or hazardous material, and it applies only to those waters which are outside of three miles and, therefore, outside of the pilotage requirements of Rhode Island, New York, or Connecticut.

Now, the penalties I think are critical, because H.R. 2872 doubles the penalties up to $100,000 for violating the Federal pilot provision of the Narraganset Bay Protection Act or for violations in other areas where there is a Federal pilot requirement. These penalties will be assessed against the owners or the operators of the vessels.

Secondly, from 1981 through 1988 there were 413 foreign-flagged tankers that were involved in accidents in U.S. waters. The *World Prodigy,* the Greek-flagged tanker, had incomplete charts, and it

had been cited earlier by the Coast Guard for such a deficiency. The *Presidente Rivera,* the Uruguayan-flagged tanker, evidently had some type of malfunction with its anchor when it ran aground in the Delaware River two and a half weeks ago. And when the *ARGO Merchant,* another foreign-flagged tanker, ran aground on Nantucket Shoals in 1976, it was found to also have outdated charts and a malfunctioning gyro.

The Narraganset Bay Protection Act seeks to prevent such incidents by ensuring that foreign-flagged tankers comply with U.S. laws concerning pollution prevention and navigation safety. The bill would authorize the Coast Guard to charge for boardings and examination of safety and navigation equipment. It would also allow the Coast Guard to conduct a more comprehensive examination of foreign-flagged tankers using U.S. waters without having to reduce other essential Coast Guard services.

Now, because of the severe budgetary constraints, which you'll hear about later, I'm sure, from Admiral Yost, we had to fight last year to re-open nine Coast Guard search and rescue stations throughout the United States, including one on Block Island. These types of functions should not be sacrificed in order to enable the Coast Guard to step up inspections on foreign-flagged tankers in the United States waters. This provision applies to all of the waters of the United States.

What we need to do is to raise the cost of carelessness and to emphasize prevention. One of the best ways to induce the oil industry to operate more safely, I believe, is to make sure that they pay heavily when there is a spill. The Oil Spill Liability and Compensation Act which, in the House, is H.R. 1465, has been around since 1976. It passed the House eight times between 1976 and today. It would raise the limit of liability on oil tankers by nearly three times, and it will allow for automatic claims by third parties such as fishermen, restaurants, motels, and even individual boat owners.

The time to pass such comprehensive legislation is now. The irony of it all is that we passed the Oil Spill Liability Act in the Merchant Marine and Fisheries Committee less than one week before these three oil spills had occurred. Hopefully, we will move swiftly to the floor of the House. Clearly we are anxious to see the Senate move on this legislation. I feel that our differences should be resolved and Congress should act on legislation as quickly as possible.

Another piece of legislation that I had introduced back in April, but is very much reflected in the American Petroleum Institute's report that you'll be hearing about today, does put the onus of responsibility for the cleanup equipment and regional plans on the part of the oil companies. In addition to that, my legislation H.R. 2291, calls for the inspection of such equipment by the Coast Guard at least once every three years. So I hope that as you are hearing about the petroleum industry's voluntary effort and voluntary report, that we make sure that it is as comprehensive as possible and you may, at that time, decide whether or not in your judgment it is appropriate to go ahead with legislation.

Finally, let me say that as long as Americans continue to thirst for oil, to rely so heavily on this particular limited resource, the potential for other disasters such as the *Exxon Valdez* or the *World*

Prodigy or the other oil spills that occurred we can be assured will more likely than not continue.

I believe that we have to renew with great vigor our emphasis on energy efficiency technology—technology which is here today—and to also put greater emphasis and resources into using renewable energy resources. We have the technological capability, as I shared with you as a member of the Science and Technology Committee. All that is required is the will of the United States to diversify our energy supply.

As a nation, I think individuals have got to recognize that the amount of energy that we are wasting in this country is being viewed by other nations—even those that are supplying us with oil, a precious resource—as exceedingly wasteful. So this will only increase the chances for another catastrophic oil spill. We need to review the way we use our very precious energy resources and the impact on our environment.

Thank you, Mr. Chairman.

Senator BAUCUS. Thank you very much, Congresswoman Schneider.

Congressman Machtley.

STATEMENT OF HON. RONALD K. MACHTLEY, A U.S. REPRESENTATIVE IN CONGRESS FROM THE STATE OF RHODE ISLAND

Mr. MACHTLEY. Thank you very much, Mr. Chairman and members of this committee.

It is an honor for me to be here to talk about the Narraganset Bay issue and to commend you for holding these hearings, because while we have had most recently three tragic accidents, there is a tendency of human nature to think we will not have another incident such as we had in Texas, Delaware, or Narraganset Bay.

In fact, this was the eighth major oil spill in Narraganset Bay since 1969. Most scientists in that area have estimated there will be 120 oil spills of some magnitude in Narraganset Bay each year. So we have a problem which is, unfortunately, recurring too frequently.

As someone who has spent most of my life around ships as an Annapolis grad in the Navy, I have had the opportunity to go in and out of harbors thousands of times, and I understand that no matter what system we use to prevent oil spills, we are still going to be dealing with human element, and that human element is always unpredictable.

There were some lessons learned from this oil spill of the *World Prodigy* in Rhode Island which I want to spend a few moments on.

The Rhode Island delegation was able to be there from almost the immediate grounding of this vessel to see what happened. There are three lessons that I think are important.

One, we are not dealing with a period that is 24 hours long that we could wait and respond. Within the first several hours there must be a response. Oil flows out of a vessel too quickly. Once that oil has flowed out of the vessel, the amount of effort to clean it, to prevent it from flowing into environmentally-sensitive areas, is 100 times the effort that would be used to keep it in that vessel. So there must be a very, very quick response.

We are very fortunate that our Coast Guard Captain Williams federalized the *World Prodigy* spill within hours and took control. This was not a situation where we had a large oil company who we could even talk to. In this case, we are dealing with foreign-flag tankers. I suspect it was at least 24 hours until we really knew who the true owner of this vessel was.

We must respond and have technology that respond within hours—one, two, three—no more than three hours.

Second, we must understand what the Federal role is in these oil spills. The Federal role has to be to prevent it. It has to be to spend money to take this primitive technology which we have to clean up oil spills and move it into the high tech world that we now live in. Senators Chafee and Pell and Ms. Schneider have mentioned how primitive the response is even under the best of circumstances. We need more money spent on reviewing how we clean up oil sills.

And then we also need to toughen our laws. We need to make every captain, no matter what ship he is going to be on, who comes into our territorial waters absolutely certain that if he is going to be wilfully negligent or careless about his obligations as captain of the ship, not only will he face civil, but he will face tough criminal laws. We have got to make certain that the captain understands our laws. In this case of the *World Prodigy* it is clearly, in my mind, a violation of seamanship and the laws of the sea. He should have had a pilot on board, and he had to make a conscious decision not to do that.

I'd like to suggest to this committee that this is an area that every State ought to review. After the Alaskan oil spill I had the opportunity to sit down with the Coast Guard and our State DEM, who did a marvelous job at the shore end of this cleanup, and our environmental groups to review what we would do with a major oil spill. It may be surprising to many States to find out that much of their cleanup gear has been sent to Alaska and is no longer available for their own spills.

But the final note that I'd like to end on is one which I think we can't lose sight of, and that is that of all the marine pollution from oil and petroleum products, only 4 percent of it is coming from major tanker spills—4 to 6 percent. The vast majority is coming from our land use, and we've got to make certain that we're focusing on that and not losing sight that 76 to 77 percent of the oil pollution of all of our estuaries and all of our major bays is still coming from the shore and not from tankers.

I appreciate the opportunity to be here and thank you all very much.

Senator BAUCUS. Thank you all very much. Again, it is an honor to have the entire Rhode Island delegation here, and I appreciate the testimony of each of you.

Senator Chafee or Senator Lautenberg, do you have any points to make or questions to ask?

Senator CHAFEE. No.

Senator LAUTENBERG. Not at this time.

Senator BAUCUS. Thank you very much for your testimony all of you.

I would now like to submit for the record a statement by the majority leader, Senator Mitchell.

[Senator Mitchell statement follows:]

STATEMENT OF HON. GEORGE J. MITCHELL, U.S. SENATOR FROM THE STATE OF MAINE

Mr. Chairman, I commend you and Senator Chafee for holding this hearing on the three recent oil spills in Rhode Island's coastal waters, the Delaware River and the Houston Ship Channel.

I share your view that the inability to contain the one million gallons of oil spilled in these accidents demonstrates the importance of preventing spills.

I believe that one important way to ensure that the oil shipping industry takes prevention of spills more seriously is to hold the industry fully accountable for the damage and costs of its carelessness.

The present oil spill laws in Maine and 17 other states, according to a U.S. Coast Guard report, do this by holding all those responsible for oil spills to a standard of strict, joint and several liability. Eighteen states provide unlimited liability.

Unlimited liability is not a question of accounting. It is an assential means of preventing negligence in the shipping of oil by placing the full financial burden of a spill where it belongs.

One of the key issues that will be before this Subcommittee when it considers oil spill legislation later this month concerns implementation of the protocols that amend the underlying oil spill conventions of 1969.

The protocols would undermine present state efforts to prevent oil spills by insulating those responsible for a spill from the full costs of their actions.

These international agreements hold only vessel owners liable and limit the liability of a large tanker owner to just over $70 million.

The protocols preempt state oil spill liability and compensation laws. They void state and federal actions governing spills from sea-going tankers that carry oil in bulk. Jurisdictions that choose to be more protective cannot do so.

The protocols not only limit liability but they make it virtually impossible to pierce the liability limit even in the most egregious cases. Under many federal and state laws, liability limits can be pierced in cases of negligence or gross negligence.

The prototcols also limit compensation to $200 million per incident. As we have unfortunately experienced in the case of the *Exxon Valdez,* this limit can be exceeded many times over.

I oppose the protocols because, by unnecessarily voiding 24 state statutes and our current federal statutes, they provide less, not more, protection for the environment.

Mr. Chairman, I thank you again for your leadership on the issues before us today, and I look forward to working with you and the other members of the Subcommittee in developing non-preemptive federal oil spill legislation.

Senator BAUCUS. Our first witness is Admiral Yost, Commandant of the United States Coast Guard. He will be accompanied by: Captain Eric Williams, United States Coast Guard from the Port of Providence; Captain Larry Murdock, United states Coast Guard, Port of Philadelphia; and Captain William Monson, United States Coast Guard at the Port of Houston.

Admiral, we are very honored that you are here. You have seen a lot in the last several months on this general issue, and we look forward to your most recent testimony. Why don't you proceed?

STATEMENT OF ADM. PAUL A. YOST, JR., COMMANDANT, U.S. COAST GUARD, ACCOMPANIED BY CAPTAIN ERIC J. WILLIAMS, III, U.S. COAST GUARD, PORT OF PROVIDENCE, RI; CAPTAIN LARRY A MURDOCK, U.S. COAST GUARD, PORT OF PHILADELPHIA, PA; AND CAPTAIN WILLIAM A. MONSON, U.S. COAST GUARD, PORT OF HOUSTON, TX

Admiral YOST. Thank you, Mr. Chairman.

I have prepared testimony. With your permission I'll summarize it and ask that the complete testimony be put in the record.

Senator BAUCUS. Your statement, Admiral, as well as the written statements of all witnesses will be included in the record.

Admiral YOST. Good morning, Mr. Chairman. I am pleased to meet with you and other distinguished members of this subcommittee to discuss the Coast Guard's role in response to the recent major oil spills in Rhode Island, the Houston Shipping Channel, and the Delaware River.

Accompanying me today are Captain Eric J. Williams, Captain of the Port of Providence; Captain William A. Monson, Captain of the Port of Houston; and Captain Larry A. Murdock, Captain of the Port of Philadelphia.

The Coast Guard responded to these cases consistent with the various provisions of the Clean Water Act and the National Contingency Plan and a Memorandum of Understanding between the Coast Guard and the Environmental Protection Agency.

Under the National Contingency Plan, a Federal predesignated On Scene Coordinator is assigned to assure that appropriate response action is taken whenever there is a discharge of oil into the navigable waters of the United States or a release of hazardous substances into the environment.

There are two established zones of responsibility: inland and coastal. The boundary between the coastal and inland zones is determined by joint agreement between the EPA and the Coast Guard and is defined in each regional contingency plan. A Coast Guard captain of the port serves as the predesignated on-scene coordinator for pollution incidents occurring in the coastal zone. The coastal zone is comprised of the waters of the exclusive economic zone extending approximately 200 miles off shore. The Great Lakes and specified ports and harbors on the inland rivers are also a part of this zone.

The EPA provides a predesignated on-scene coordinator for the inland zone. In accordance with a Coast Guard-EPA Memorandum of Understanding, the local Coast Guard captain of port is the predesignated On-Scene Coordinator for all discharges of oil and hazardous substances which result from a vessel casualty or vessel transfer activity within specified port and harbors of the inland river system.

The EPA normally serve as the predesignated On-Scene Coordinator for discharges which occur at industrial facilities, bulk storage facilities, or hazardous waste sites, or for non-marine transportation casualties in the inland zone.

Now, the spill in Rhode Island: at approximately 4:45 p.m. on Friday, June 23, 1989, the Greek-flagged tank ship *World Prodigy* ran aground on Brenton Reef just outside Narraganset Bay, Rhode Island.

The vessel was carrying approximately eight million gallons of number 2 home heating oil. Nine cargo tanks were damaged, and approximately 290,000 gallons of oil were released into the coastal waters of Rhode Island.

Captain Eric J. Williams, the Coast Guard Captain of the Port of Providence, was the Federal On-Scene Coordinator for the spill.

At approximately 5:15 p.m., one half hour after the spill, the Coast Guard federalized this spill because the insurer of the vessel was unable to contact the owner's representative for authorization to conduct the cleanup. However, by noon on June 25, 1989, the owner agreed to assume financial responsibility for the cleanup,

but the Coast Guard retained Federal control to the end. Captain Williams can comment on that spill in some detail if you desire at a later time.

The spill in Houston, Texas: at 6:20 p.m. on Friday, June 23, 1989, Captain William A. Monson, the Coast Guard Captain of the Port of Houston, received a report of collision between the Panamanian-flagged chemical tank ship, *Rachel B,* and the U.S. oil-carrying barge, Coastal 2514, resulting in an oil spill in the Houston shipping channel. The *Rachel B* damaged its bow but released no oil. The barge suffered damage to three cargo tanks and released approximately 250,000 gallons of heavy slurry oil. The owner of the damaged barge accepted financial responsibility for the cleanup and hired a local cleanup contractor. I will have Captain Monson discuss this issue, in detail, if you desire, in response to the subcommitte questions.

The spill in the Delaware River: at approximately 4:46 a.m. on Saturday, June 24, 1989, Captain Larry A. Murdock, the Coast Guard Captain of the Port of Philadelphia, received a report that the Uruguayan-flagged tank ship, *Presidente Rivera,* was hard aground releasing number six industrial heating oil in the Delaware River near Marcus Hook. The insurer of the vessel assumed financial responsibility for cleanup and hired a cleanup contractor at 5:40 a.m.

Coast Guard personnel were on the scene at 6:30 a.m. The NOAA scientific Support Corps coordinator provided a spill trajectory. EPA provided personnel support before 8:00 a.m. The NOAA Scientific Support coordinator was on the scene at approximately 1:00 p.m. The Coast Guard strike team personnel from Mobile, Alabama, arrived in Philadelphia at 1:15 p.m.

Four cargo tanks were damaged, and approximately 300,000 gallons of the 18 million gallons of number six oil aboard the vessel had been released to the Delaware River. I will have Captain Murdock discuss this issue, in detail, in response to the Subcommittee questions if you desire.

When a spill occurred, the Coast Guard Captain of the Port investigates the cause of the spill. In these three recent oil spills, our normal investigative process is being followed, and after-action reports are being prepared. Once finished, these reports will be reviewed at Coast Guard headquarters and necessary corrective actions, where necessary, will be taken. All three spill investigations are in various stages of completion but should be finalized shortly. Separately, these three casualties will be investigated under the authority of the local Coast Guard Officer-in-Charge of Marine Inspection.

The environmental damage resulting from these three spills has not been fully assessed. Environmental damage assessment is the responsibility of the natural resources trustees which, in these cases, include the Department of Interior, the Department of Commerce, and the affected States.

Now, if I may digress from my prepared remarks for a moment, Mr. Chairman, you said in your opening remarks that you welcomed the members of the industry here, and particularly the United States Coast Guard. I think that every Member that testi-

fied here today, as well as members of your committee, have congratulated the Coast Guard in our operations in this area.

You mentioned that you approached this hearing with a healthy dose of skepticism. I have to tell you that I approach this hearing with the same healthy dose of skepticism.

I have just seen this morning the markup from the House side on the Coast Guard budget. I would say to you, Mr. Chairman, that the markup puts us about $600 million beneath the President's budget, although it presupposes that $300 million of that will be made up from the Department of Defense.

I have also looked very closely at the 302(b) allocations in this body which, Mr. Chairman, I think every member of a committee as important as yours probably had a say in. Those 302(b) allocations appear to me to be well below, for the Coast Guard and for the Department that I serve, what would be needed to give me the President's budget within the DOT appropriation.

So my skepticism runs to a concern to increase VTS in Delaware Bay, increase the VTS in New York City—or reestablish it—reestablish the VTS in New Orleans, expand the VTS in Prince William Sound, expand the Coast Guard's responsibilities in drug cleanup and have a more forthcoming and responsive response to this. I'm also concerned with my responsibilities for drug interdiction. As you know, I visited Key West three days ago and we captured two tons of cocaine.

So I approach this with a great deal of skepticism, as well. I'm aware that this body has, since 1976, held up ratification of the international protocols that I badly need in responding to spills.

I am encouraged by the fact that Senator Lautenberg is here, the Chairman of my Appropriations Committee, who has been a supporter beyond the call of duty to the Coast Guard. So my skepticism is somewhat mitigated by knowing that there are some members of this body who are very, very concerned about the Coast Guard's budget, and I encourage you and the members of this committee to do the same and to support where I need support and replace that with some of your skepticism and maybe I can replace mine, as well.

Senator BAUCUS. Thank you very much, Admiral. You should know, however, that this committee does not have responsibility of being involved in 302(b) allocation. That is not the responsibility of this committee. That does not mean, however, that we are not United States Senators who have some influence on determinations made by the Senate, as a whole. But this committee is not charged with the 302(b) responsibilities.

Admiral YOST. I thought that the chairman of each committee had a say on the 302(b) allocations. I was wrong.

Senator BAUCUS. In this case not.

Admiral YOST. I apologize.

Senator BAUCUS. Turning to the same basic point, however; that is, the ability of the oil industry and, for that matter, the Coast Guard to have the technology and the wherewithal to both prevent and contain future spills, let me say this: frankly, I think that the Coast Guard has handled the three spills that we are dealing with this morning about as well as it could under the circumstances.

Admiral YOST. Thank you.

Senator BAUCUS. I commend the Coast Guard for that—again, under the circumstances.

However, it seems to me that we do not have, the oil industry does not have, and the Coast Guard still does not have the technology or the level of commitment yet necessary to adequately prevent and contain future spills.

For example, even though two booms were in place around the *World Prodigy* off Rhode Island's coast, within four hours of the accident the spill was still not controlled, and within two days it was 20 miles wide and moving into Narraganset Bay.

In addition, the tanker in the Delaware River was boomed within six hours, but two days later oil had contaminated 21 miles of shoreline.

In the Houston Ship Channel there was initial cleanup. Later, however, the boomed oil was allowed to escape.

A lot of people blame the failure to contain the *Exxon Valdez* on the sheer size of the spill, but it seems to me that in this case we couldn't even contain the three recent spills, which were about 20 times smaller than the spill associated with the *Exxon Valdez.*

So do you agree that, given the current technology and current appropriations commitment and current attitudes of the oil industry and others associated with the responsibility, that the government and industry still have need of that technology or the level of commitment needed to control and prevent major oil spills of this kind?

Admiral YOST. I don't think that we have shown that that level of commitment is there within the government or within the budget process, which is really the bottom line. I'm not sure that we, as a government or a people, are willing to pay the price to have major equipment in every port or every major port or harbor sufficient to handle an oil spill the size of the Alyeska oil spill. I'm not sure we could afford it, as a country. But whether we can or not depends, first, on our commitment, and I don't know that that exists. But I don't think it is the fault of any of us who are working in the area; it is a matter of economics.

Senator BAUCUS. Well, turning to the oil industry, do you think that they have shown the requisite commitment to both control and prevention?

Admiral YOST. I have been very encouraged by the American Petroleum Institute proposal. I think it was forthcoming. Whether it goes far enough or not, we haven't yet taken a position on that or analyzed it.

I haven't been always complimentary on Exxon's efforts in Valdez, but recently I have felt that their efforts approached—I have described it as "It looks like M day before a major battle." The amount of equipment that they have mobilized—they are the second biggest employer in Alaska with 10,000 people working on the spill. So there is a lot of commitment there. Whether it fully satisfies me, as the President's person responsible for the cleanup, is not so much of a question as the commitment obviously being there. Whether it is as much as I would like is another question.

Senator BAUCUS. What about those suggestions that there must be a much greater financial incentive on the oil industry so that they take much greater measures to prevent spills of this kind? We

have heard suggestions about greater civil and perhaps criminal liability that would befall a captain of a ship or a master who was negligent. Other suggestions call for much greater financial liability on a company that obviously has not taken requisite steps to prevent an occurrence. What is your general feeling about actions of that kind?

Admiral YOST. My general feeling is that we do need to hold the spiller responsible for the cost of the cleanup. At the least we need to do that. And we ought to look at any legislation that immediately federalizes every spill with somewhat a jaundiced eye because that takes away from the spiller the liability of cleaning it up and the cost of cleaning it up.

On the other hand, I am also aware that somebody like Exxon or Mobile or AMOCO or one of those big companies is very, very fiscally and financially responsible and able to spend the kind of money that it takes to clean up a large oil spill. But there are many foreign companies—and perhaps even American companies—that are one-ship companies; they don't have deep pockets, and they can spill as much oil as an *Exxon Valdez.* And when you go after that company, you're going to find nothing there but a wrecked oil tanker out on the reef. And that's why we're going to have to go into some sort of a fund, and I propose the international fund that the Administration's bill would have this body ratify.

Senator BAUCUS. Do you have any preliminary thoughts, in addition to a fund, as to how to deal with that problem? I might say at this point that this subcommittee will have a subsequent hearing on legislative remedies. This hearing is more intended to be factual and investigative and find out what happened.

Admiral YOST. Yes. I would just say that the Administration's bill provides some $500 million to clean up, in addition to the international protocols. I know that that's something that you have said you will hold hearings on later, and Senator Pell is going to talk about it this afternoon.

I'm not so worried about the Exxons and the Mobils and the AMOCOs of the world as I am about the one-ship foreign companies that we've got no way of getting to. I think we ought to leave the responsibility on those big companies to clean up.

Senator BAUCUS. What about the Exxons of the world? We don't have a solid proof yet, but it looks like even the *Exxon Valdez* was not cleaned up. Off the California coast it is leaking. I have heard reports from Alaskans who tell me that they believe the company is still very arrogant in dealing with Alaskans and dealing still with the problem.

Admiral YOST. There is a lot of anger in Alaska.

Senator BAUCUS. A lot of anger.

Admiral YOST. And there is a lot of Exxon bashing, and some of it may be deserved—probably not all of it. I have been one of their biggest critics. I have been the guy that has held their feet to the fire. So I have a feeling that they have done a considerable amount, and I am not necessarily disappointed with the attitude or the response there. I would have liked a little more, and I have said that to Exxon—a few more people on the beach or a little more equipment. But, overall, I think that they have done a very credible, craftsman-like job up there.

Senator BAUCUS. But, again, what additional financial incentives to even an Exxon is much more likely to take the requisite measures to prevent a reoccurrence of that spill?

Admiral YOST. I am not prepared to comment on that. I'm just not capable. I haven't researched it. What kind of financial incentives would cause the oil companies to do more research and development, investigate safer methods of carrying oil and transporting oil? That's a very complex subject.

Senator BAUCUS. And see to it that its captains are qualified.

Admiral YOST. And, frankly, the Coast Guard shares with them that responsibility. We license those captains. I'm not satisfied with our licensing capabilities. I'm not satisfied because we had a captain licensed that couldn't hold a drivers license because we were unable to review the drivers license records of the States to learn that this individual had been under indictment or had his license suspended for alcohol abuse. We need to be sure that doesn't happen when you're running a tanker of that size.

But I'd like to also do it for cabs. When I get in a cab in New York, I don't want the cab driver on drugs either. In this country, we've got a serious drug problem, and that is the another part of the Coast Guard's duties and responsibilities. And we've got to get at it, and I want to cooperate any way I can.

Senator BAUCUS. Thank you very much, Admiral.

Senator Chafee.

Senator CHAFEE. Admiral, a series of questions: first, double hulls. There is a lot of talk about double hulls. How effective are those? And what, indeed, is a double hull?

Admiral YOST. A double hull is extremely effective, and this country supported double bottoms 10 years ago. The Coast Guard led a delegation to the International Maritime Organization to negotiate a double-bottom position for the United States.

We found that we were unable to negotiate that internationally, and it didn't make a lot of sense to dictate it nationally when most of our oil comes in foreign tankers.

Senator CHAFEE. Suppose the *World Prodigy* had a double hull and so they ran up on Brenton's Reef. Is the suggestion that that would just pierce the bottom of the double hull and wouldn't go into the tank? How much of a gap is there?

Admiral YOST. It depends. Different ships have different sizes of depth. Let me say it this way: the *Exxon Valdez*, had she had a double bottom, would have spilled about half the amount of oil that she, in fact, spilled when she went aground. The vessel that went aground on Brenton Reef? We haven't analyzed that. It takes several weeks to analyze that after we get the ship in dry dock and see how much she was pierced and then look at what the construction would have been with a double bottom.

I will guess—and a pretty educated guess—she would have spilled less oil had she had a double bottom; on the other hand, most spills come from collisions, and in a collision a double bottom doesn't help very much. In a collision you want double sides. So if you go to double bottoms and double sides, there is a cost for that because that ship is now carrying less cargo because it is surrounded by a void of some sort.

Senator CHAFEE. So you have practically built two ships?

Admiral YOST. You have practically built two ships. You've got to look at the economics of the thing. What are we willing—the chairman's comment on what the commitment is of the Federal Government and the American people, and that commitment is going to be in the pocketbook, whether it is what we pay at the gas pump or the extent of the Coast Guard budget.

Senator CHAFEE. Also, we'd have to get into the situation of requiring foreign vessels, obviously, to have the double hulls. Most of the oil that comes into the U.S. is in foreign vessels, isn't it?

Admiral YOST. It is, and that's why we have tried to negotiate these standards internationally. We have been extremely successful in negotiating international standards much higher than they were when we came into the arena.

Senator CHAFEE. One of the suggestions—and you heard Senator Pell refer to it—of a shipbuilder in Rhode Island, is that once a tanker goes aground, that they have it rigged so that the skipper could throw a valve that would prevent the air from going into the interior hull of the vessel, so that thus there would be an effective vacuum set out. If the oil started to go out there would be a vacuum, and thus the oil wouldn't go out. He gave a rather dramatic demonstration of showing two containers, one he pierced from the bottom, and the oil went out into the water around it because the air came in from above. The other didn't permit air in, thus a vacuum, thus holding—I believe it was a principle that was first discovered in about 1412. Give me your thoughts on that. Is that a feasible possibility?

Admiral YOST. I think that anything that has been around since 1412 probably the Federal Government ought to take a look at seriously.

Senator CHAFEE. Well, we don't want to rush into these things.

Admiral YOST. And I commit to you, sir, we will take a serious look at it. It is something we haven't analyzed. I have information on it here, and I have an article that was in one of the Rhode Island papers on it, and we are interested in it. It does have some problems at first, but let us take a look at it and we'll get back to you on it.

Senator CHAFEE. Actually I think it was the 1500s.

[The following additional information was supplied for the record:]

Internationally, a proposal by Sweden that is similar to (but more detailed than) the one that has been published by Mr. Blount, the Rhode Island shipbuilder, is currently being reviewed by the International Maritime Organization (IMO). IMO's Marine Environmental Protection Committee has requested comments from the Organization's technical subcommittees.

Theoretically, the proposal appears feasible, but it could increase the safety risks for tankers. There are inert gas systems, ventilation systems, and gauging systems currently required aboard tankers to prevent explosions. The use of the proposed system would circumvent these safety systems when the ship is entering or leaving port, i.e., during the time when it is most critical to prevent explosion. Current domestic and internationally regulations require the installation of Pressure/Vacuum (P/V) valves to prevent the over- and under-pressurization of cargo oil tanks. In use, the valve would quadruple the vacuum setting of the P/V valves. Tanker decks are not currently designed to withstand such under-pressurization which could lead to the failure of the deck. There are also concerns that the proposed system would not be effective for collisions or other damage to a vessel's side. The proposal's potential to reduce the size of a spill would be greatly dependent upon the location and extent of damage and the physical properties of the oil.

After detailed review and discussion of the proposal, IMO's Subcommittee on Fire Protection concluded that the proposed system does not appear feasible and, taking into account the reduction of the existing safety margin to which a ship would be exposed over its lifetime, does not seem justified. The IMO Subcommittee on Ship Design and Equipment is also considering the proposal.

Senator CHAFEE. I'd like to direct this perhaps to Captain Williams, but I guess to you, too, Admiral: all of us, I think, feel a sense of confidence when one of these spills is federalized. We feel that thus the full power of the Federal Government is behind it. I'm not quite sure of your rationale of saying "Don't federalize it if it is somebody with deep pockets such as AMOCO or Exxon." Give me your philosophy again on that, would you please?

Admiral YOST. We have a myriad of relatively small spills on a daily basis throughout the United States. We don't have the capability in the Coast Guard to federalize each one of those spills, whether it is one barrel or 500 barrels. There are lots of those. We would need a much larger organization, contracting organization, etc., to do that.

It has worked very well with those reasonably-sized spills to have the spiller clean it up where we can identify him; and where we can't identify the spiller, we federalize we see that it is cleaned up through contractors.

I think that there comes a point in the size of a spill — we call it perhaps a "spill of national significance," where we need to think very seriously about automatically federalizing a spill of that size. It is a spill that is approaching a national disaster, and we perhaps need to immediately federalize or at least take firmer control of all of those types of spills so that the response is timely and appropriate.

Senator CHAFEE. I just want to say publicly to you, Admiral, how grateful we are to you, your entire organization, and especially to Captain Williams, who was the man in charge. If something had gone wrong, I'm sure Captain Williams' head would have rolled.

Admiral YOST. He would have been court martialed. [Laughter.]

Senator CHAFEE. So since he did such a good job, keep him in mind for a promotion at some time. [Laughter.]

Admiral YOST. Thank you, sir. I'm sure he will appreciate that, as well.

Senator CHAFEE. Now quickly, Admiral, one more question, and that is the pilotage situation. The pilots are States-licensed pilots, and it seems to me we have got a formula for disaster in our area up there where in the entrance of Long Island Sound you've got Connecticut pilots, New York pilots, and Rhode Island pilots—I presume with different training and different backgrounds. Have you any thoughts on that situation? Not necessarily right there, but nationally.

Admiral YOST. Yes, I do. I have brought back on active duty Rear Admiral Dick Bowman, United States Coast Guard Retired. I brought him back on active duty for a period of two or three months and put with him a very, very qualified group of senior officers to examine all of pilotage. I'm not satisfied with pilotage. I haven't been satisfied with pilotage for a very long time.

A pilot that is operating under a State license does not come under the jurisdiction of the Federal Government, even though he holds a Federal license.

There are no disciplinary methods, and, very frankly, some—not all, but some—of the pilots' associations have something in common with our medical associations: very seldom do you see a medical doctor who is disciplined by his medical association. It is difficult for those colleagues to discipline a fellow doctor. That may even be true in the Congress—I'm not sure.

Senator BAUCUS. Probably more.

Senator CHAFEE. I can assure you it is.

Admiral YOST. In pilots it is certainly true. I want the ability to be able to discipline a pilot who has a Federal license, even though he is operating under a State license. I think we need to take a full look at the full scope of pilotage, and we're doing that, and we need to make some changes.

Senator CHAFEE. Well, I appreciate that and I'm glad you're doing it. It isn't solely in the discipline. My time is up. It isn't solely in the disciplinary; it is in the training.

Admiral YOST. I'd like to comment on training. Most State pilots do, in fact, hold a Federal license. Almost every State pilot association requires its people coming in to become a State pilot to have a Federal pilot's license. The qualification is normally there. In most cases it is there. But the discipline is not always available. It is very hard to discipline a State pilot sometimes under some associations.

Senator CHAFEE. Thank you.

Senator BAUCUS. Thank you Admiral, and thank you, Senator.

Senator Lautenberg.

Senator LAUTENBERG. Thank you very much, Mr. Chairman. Admiral Yost, welcome. I do want to point out, for the benefit of the public and those who will read the transcript of this hearing, that the Coast Guard continues to have its budget expanded with rare exception year after year. The service has grown. Its duties have grown. Its skills have grown. And so, frankly, has the budget. We are just beginning the cycle. There is a substantial increase from a year ago, and I would remind the chairman of this subcommittee, as we examine budgets, that the Department of the Interior, which may be of some interest in your State, had a substantial cut from where it was. So you may want to look into that budget.

Senator BAUCUS. Better cut the Coast Guard.

Senator LAUTENBERG. I just wanted the Admiral to see what sort of contests take place here. The Coast Guard is a favorite right now of everybody, including me, as you know.

Admiral YOST. Always, sir.

Senator LAUTENBERG. I wanted to ask a couple of questions. First of all, double hulls, In the case of the *Exxon Valdez,* the reef penetrated the hull, I think, as much as 20 feet in some places yet, I heard you say that the resulting spill would have been halved had there been a double hull. A double hull typically is not more than six feet in its width or depth, is it? How would that have reduced the spill?

Admiral YOST. We brought in one of our naval architects and had her spend a considerable amount of time with the ship's plans,

the builder's plans. And the naval architect that designed the vessel, examined the amount of penetration into the tanks—and you're right, Senator, there were some rocks in those tanks that were the size of Volkswagens, and one is still in there. Some of the tanks it would have pierced on up through the double bottom and wouldn't have made any difference. In some tanks that were opened, it did not pierce up high enough to have pierced what would have been a double bottom. So she would have lost about half the oil that she lost.

Now, the stability might have been affected adversely by double bottoms; and the ship could have been in more danger, but that's a different subject.

Senator LAUTENBERG. Captain Murdock, I was told that the Delaware River area was notably soft bottom. Am I correct that where the *Presidente Rivera* ran aground that is a soft bottom area, is it not?

Captain MURDOCK. My understanding, sir, is that that's the only area of the Delaware that is not soft bottom. It is the one area they keep finding.

Senator LAUTENBERG. Otherwise, it challenges the initial theory. I appreciate your comment there.

The one thing that has happened—and, Admiral, you have said it and I respect your candor always—that the Coast Guard in some way was not without fault. Let's take the Valdez incident. I was in the VTS station. We know how the structure of that channel lies—that, in fact, the Coast Guard had the capacity to monitor the ship's course through the channel. What was lacking there was, one, a working program deck; two, any system for alerting the Coast Guard station where the person on duty might have, over the VHF, notified the ship that it was four miles off course. This was not an insignificant distance.

When I asked the man who was recalled to duty whether that system was in place, he said, "The program deck didn't work." I was stunned, I must tell you Vice Admiral Robbins was there with me—to hear this man say that here was a program that wasn't working. Why not? Well, it just wasn't working.

The point here is not to punish but to repair. The VTS structure has to be, in my view, an integral part of the management of that traffic in a react mode so that when we see something taking place, there is immediate radio contact to alert that pilot or the captain of that ship. I assume that you would agree, providing, again, that the funding is there to activate these stations.

Admiral YOST. I agree with you, sir. I'm not fully pleased with the performance of the VTS in Valdez; however, part of that performance was a matter of equipment design. The program that you're talking about overlaid onto the channel—onto the scope—the extent of the channel in that area, and that program wasn't working.

It could have been that the watchstander was a little defensive in speaking to you.

What was really lacking there, in my view, if we want radar coverage out that far, is better radar coverage and some sort of an alerting system. We have talked about that when that ship goes out of the channel and is out of the channel for more than three or

four points of the scope an alarm goes off or a bell goes off and it says to the watchstander, "Hey, watchstander, pay attention. There is something different going on there." That's a much more sophisticated system than we put in 12 years ago. We've got to look at updating these vessel traffic systems if we are going to keep them on-line.

Senator LAUTENBERG. I introduced into the supplemental appropriations bill, which was signed by the President, the ability for the contingent fund to borrow directly so that we are never in jeopardy of running out of money before we get the job underway.

I want to say something here, and I'd like your view. I think that the responsibility for oil spills ought to lie fully with the owners. You get some odd national flag out there. All it is is this single vessel. They have provided some kind of bonding that takes them up to a limit that doesn't come near the cost of the spill cleanup. What I would like to see, very frankly, is that those responsible for the spill have all the responsibility for funding, including depreciation of equipment, including normal service time—whether it is Coast Guard or Navy or Air Force. We have virtually a military engagement up in Valdez—all of that time to be reimbursed.

As I understand it, the Clean Water Act calls for extraordinary expenses to be reimbursed. I think everything ought to be paid for—engine wear and tear and the whole thing. I'm going to do something about making sure that happens.

In the case of Superfund, we say that the responsible party, if we can catch them, pays. We ought to use the same philosophy, in my view, in terms of oil spill liability. They ought to pay for the whole bloody thing.

There is a whole series of things, Mr. Chairman, that we'd all like to get into with Admiral Yost and his colleagues. Once again, we do compliment him and his service on the distinguished record. We are fully behind his efforts. We want to make sure, however, that as we throw bouquets we don't pass the opportunity to know where Coast Guard can improve its operations and ask of you to give us your ideas on ways that we can improve the whole structure of things that relate to your function.

Thank you very much.

Senator BAUCUS. Thank you, Senator.

One quick question, Admiral: why was there no pilot on board the *World Prodigy?*

Admiral YOST. Why don't I refer that to the Captain of the Port? I've got three superstars with me in the Coast Guard, and I'd like to let them speak to their own areas.

Senator BAUCUS. Captain Williams.

Captain WILLIAMS. Good morning. The pilot boat was coming out with a pilot on-board to deliver the pilot on ship as it approached the coast. The vessel was a little early, so the pilot boat was not yet on station, so the master of the vessel continued on his way in too close past the line defining pilot waters for the State. So he just voluntarily came in closer—perhaps to pick up the pilot in calmer waters. That was his decision.

Senator BAUCUS. So a decision of the captain to proceed, even though the captain arrived at the designated spot too early?

Captain WILLIAMS. That's correct.

Senator BAUCUS. Is there a State or Federal requirement that a pilot be on board?

Captain WILLIAMS. There is a State requirement to have a pilot in their waters north of the line between Point Judith and Sacana Point, and beyond that line a pilot is required by the State of Rhode Island. The vessel passed that point and did not stop.

Senator BAUCUS. Is there a Federal requirement?

Captain WILLIAMS. No, there is not.

Senator BAUCUS. Is there a State or Federal penalty in the event the pilot is not on-board, even though there is no accident?

Captain WILLIAMS. The State Pilot Commission is meeting on that to see what they're going to do about the fact that the pilot wasn't out there on time. Plus, the State is taking a look at any kind of criminal violation by the vessel master.

Senator BAUCUS. Is there a clear civil or criminal responsibility? Or is it unclear?

Captain WILLIAMS. It is probably unclear as far as the vessel goes. The State is pursuing that through the State legislation and State laws.

Senator BAUCUS. So that is part of the problem here. It is vague. It is unclear.

Captain WILLIAMS. It is vague, and the pilot station, itself, is somewhat vague.

Senator Chafee.

Senator CHAFEE. Another quick question, Admiral: do you think those lines where a pilot should be picked up should be Federal lines rather than State lines?

Admiral YOST. I think we need to take a look at every place we have pilotage to see whether it is in the right place. Obviously, in Prince William Sound that pilot station was way too far in. It was all the way in at Rocky Point. Twelve years ago, when we established the Valdez traffic system and the whole pipeline system, that pilot station was out 40 miles out at Hinchbrook. It was moved because of rough weather and the loss of a pilot boat and some other things. So those things we need to look at and see where the pilot needs to be and put the pilot where he needs to be—not where the weather is good, not where it is convenient, but where we need to put pilots in order to assure the safe transportation of oil and other substances.

Senator CHAFEE. And that's what your committee is doing?

Admiral YOST. Yes, sir.

Senator CHAFEE. Secondly, a quick question on the location of your equipment: as I understand, you have a stockpile of equipment, as it were, in Alabama for the Gulf and East Coast, and a similar setup on the West Coast. What do you think of that arrangement?

Admiral YOST. We only stockpile that equipment that isn't readily available from contractors throughout the country. It is specialized equipment. It is expensive equipment. And it is equipment that takes a lot of technology to keep operating and to work. We air transport that to various locations. That is a good system. It is not an outstanding system.

Senator CHAFEE. Whose aircraft transports it? Yours?

Admiral YOST. Coast Guard aircraft. And they are airborne within minutes after being notified. But it is a good system. It is not an outstanding system. If it were outstanding, we would be in concert with the regional response team, which includes Federal and State officials with the responsibility for the environment.

Senator LAUTENBERG. When you have a number of incidents in accident-prone areas, do you examine the navigation channels for the possibility of reconstruction? I happen to know the area off Brenton Point. I'm in those waters quite a bit. Do you change the channel at all in response——

Admiral YOST. Yes, but what we change is the aids to navigation marking the channel. If we have a real bad channel situation, we go to the Corps of Engineers and see if we can get them to put in a waterway project to change the channel, itself, which is usually dredging and that sort of thing.

Senator LAUTENBERG. But you put in additional markers if required, and buoys?

Admiral YOST. Yes, sir. And, as you know—you and I have both sailed the Brenton Reef area—you can see Brenton Reef for 30 miles in each direction. I don't know how you could mark that better. Remove it maybe.

Senator LAUTENBERG. Thank you very much, Admiral. I appreciate it very much.

Admiral YOST. Thank you.

Senator LAUTENBERG. Our next panel consists of Mr. Robert Bendick, who is the Director of the Rhode Island Department of Environmental Management; Mr. Christopher Daggett, Commissioner, New Jersey Department of Environmental Protection; and Mr. Ronald Lambertson, Regional Director, Region Five, United States Fish and Wildlife Service.

It is my understanding that Mr. Markos is here in place of Mr. Bendick.

Mr. Markos, why don't you begin?

STATEMENT OF ARTHUR MARKOS, CHIEF OF STAFF TO GOVERNOR EDWARD DiPRETE, RHODE ISLAND, ACCOMPANIED BY MICHAEL A. ANNARUMMO, DEPUTY DIRECTOR FOR ENVIRONMENTAL QUALITY, RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Mr. MARKOS. Thank you, Mr. Chairman. I am here today representing Governor Edward DiPrete of Rhode Island. I am honored to have the opportunity to offer the governor's views before the Senate Subcommittee on Environmental Protection.

I also have with me Mike Annarummo, who is the Deputy Director of the Rhode Island Department of Environmental Management and who is the most experienced Rhode Island official with wide and extensive and years-long experience dealing with oil spills.

Governor DiPrete is Governor of a State that has over 400 miles of shoreline, and who found it essential to have a comprehensive plan to cushion the environmental and economic impact of oil spills. It is essential to have national and State legislation to protect our precious natural resources.

My testimony on behalf of the Governor will relate to the issues of June 23d and the *World Prodigy* oil spill in Narraganset Bay.

The factors that contributed to the spill by the *World Prodigy* included that the vessel had arrived early at the pilot station, as you have heard before; it is an area southeast of the Brenton Reef light tower, and it failed to wait for the pilot at this rendezvous point. Secondly, the vessel was off course and wandered off the well-marked channel and, in fact, when directly questioned by the Governor that night on board the ship, the captain was not able to account for his improper action. He admitted to the Governor, "I made a mistake." The captain was not familiar with the Rhode Island waters and was not using the proper charts for Narraganset Bay.

The nature, promptness, and efficiency of the response: the *World Prodigy* struck a submerged reef off Brenton Point after 4:40 p.m. Within 11 minutes of receiving the news of the oil spill, the Coast Guard dispatched vessels and quickly circled the freighter with containment booms. The Governor was notified about the accident, and immediately the State's Department of Environmental Management Spill Response Team was contacted and were responding to the accident.

By 5:30 we began contacting area cleanup contractors and placing equipment on standby. A command center was established in the Governor's office and, very fortunately and importantly, the previously-developed and updated United States Coast Guard State DEM oil and hazardous substance pollution contingency plan was put into action.

We immediately alerted the State's emergency contractors and instructed the companies to employ booms and absorbants in sensitive areas along the bay to protect key environmental resources. Those areas had been previously identified.

Since the direction of the spill's movement was thought to be moving east at the time, we also had another team dispatched to the Little Compton area.

State personnel were also stationed on the vessel and remained there for the remainder of the cleanup operation.

I would like to say that a number of people were responsible for the success of the Rhode Island cleanup, and the Governor would like to point out their participation in that success: first of all, the President and the White House staff; our entire Congressional delegation—and I think you can see, in addition to Senator Chafee, the presence of our entire Congressional delegation indicates how knowledgeable and experienced and well coordinated they were: the various Federal agencies that participated, including the EPA; and especially the United States Coast Guard—and, as you have seen Captain Williams here today, whose tireless efforts were truly important; our Rhode Island Department of Environmental Management; our Rhode Island National Guard; Save the Bay, the largest citizen organization which participated and volunteered in the cleanup; and even volunteers from our State's prison who were let out for a day at the beach and helped clean up the oil spill.

Senator BAUCUS. Mr. Markos, your time is going to be short. I think what we'd be extremely interested in are the recommendations of the Governor.

Mr. MARKOS. Let me move, then, to those.

We have begun an assessment of the environmental effects and natural resource damages. The oil spill posed a threat to the valuable marine ecosystem on Narraganset Bay, and a full assessment of the environmental impact has not yet been completed, but it must be. Areas of concern include the effects on populations of lobster, crabs, and other shellfish, including mussels and clams and juvenile fin fish. During the spill cleanup, a number of organisms were found to be dead, including some of those organisms I mentioned. In addition, in certain locations several shore birds were found coated with oil.

A number of studies and surveys have been initiated to assess more accurately the effects of the oil spill. Actions that we have taken in Rhode Island since the spill include: requesting the Rhode Island Small Business Loan Fund to give priority to applications from those affected by the spill, including the fishing and tourism industries; recommending the use of State Emergency Response Fund for recording and analysis and producing remedial and investigatory reports. In addition, it could be used for spill response analysis, containment, and cleanup.

We have called for tighter State water pollution laws which would increase civil penalties to twice the cleanup costs in order that money not be applied to the cleanup could create a special fund dedicated to research and relief. And we have directed our legal counsel and staff to develop emergency legislation which would stiffen the fines for water pollution violations.

In preventing future oil spills and to improve containment and removal of the spilled oil, in order to prevent future oil spills we have asked that the State's Congressional delegation strongly urge this committee to amend the Disaster Relief Act of 1974 to make oil spills a major disaster, thus——

Senator BAUCUS. I'm going to have to ask you to summarize your testimony, Mr. Markos.

Mr. MARKOS. In preventing tanker accidents, tanker captains of ships travelling from country to country should be subject to greater level training.

We have argued for modern navigational systems that can be adapted to provide early warning and for improvement of the Brenton Reef signaling Buoy system.

In terms of containment and cleanup——

Senator BAUCUS. You'll have to summarize more quickly, because there is a vote going on and I need to get the next witness in before we break.

Mr. MARKOS. I'll submit the written testimony. We have recommendations in the area of containment and cleanup technology, as well.

Senator BAUCUS. Thank you, Mr. Markos. I understand that Mr. Daggett is not here, but Deputy Commissioner Mr. Burke is. Mr. Burke, why don't you proceed?

STATEMENT OF GERARD BURKE, ACTING DEPUTY COMMISSIONER, NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION ACCOMPANIED BY STAN DELIKAT, CHIEF, BUREAU OF EMERGENCY RESPONSE, NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

Mr. BURKE. Thank you, Mr. Chairman. Good morning, Mr. Chairman and members of the subcommittee. I am Gerard Burke, Acting Deputy Commissioner of the New Jersey Department of Environmental Protection. I am appearing on behalf of Christopher Daggett, our Commissioner.

Thank you for this opportunity to address the important issue of oil spill emergency response. With your permission, I would like to introduce Stan Delikat, Chief of DEP's Bureau of Emergency Response, who is on my left.

A few months ago, the *Valdez* oil spill and its environmentally disastrous consequences caused us to review our contingency plans for a similar emergency in New Jersey waters. Fortunately, not many supertankers of the Valdez' capacity ply our waters, but because of New Jersey's population density and our relatively narrow waterways, a much smaller spill has the equivalent potential for economic and ecological disaster.

The 300,000 gallon spill last month by the *Presidente Rivera* is the latest in a series of major spills on the Delaware River which form the basis for my testimony today.

In September, 1985, the Grand Eagle spilled more than 400,000 gallons of crude oil. In March, 1986, the *Intermar Alliance* spilled 200,000 gallons of crude oil. In September, 1986, the *Viking Osprey* spilled 250,000 gallons of crude oil. Last January, a Texaco barge caused a 100,000 gallon spill of diesel oil and toluene. This totals five major petroleum spills along the Delaware since September of 1985.

Before I make specific recommendations as to how we might better respond to major oil spills, I would like to address the broader issue of the areas of New Jersey threatened by and responsibilities for handling such incidents.

As you are aware, the Coast Guard has the primary responsibility for handling oil spills in the water surrounding New Jersey. From Tom's River, New Jersey north, the captain of the Port of New York Coast Guard Group is responsible. The remainder of New Jersey's coast, including Delaware Bay and the Delaware River, all the way upriver to Trenton, is the responsibility of the Coast Guard Group Philadelphia. Thus, the responsibility to protect a major portion of the New Jersey shoreline depends to the Captain of the Port of Philadelphia. This is also the principal area threatened in New Jersey, since over 70 percent of all oil entering the eastern United States does so through Delaware Bay.

Coordination of oil spill responses in the Delaware River and Bay is unique in that the Federal on-site coordinator, the Captain of the Port of Philadelphia, has organized a very active, multi-agency, local response team as his primary advisory body. This team serves up to and through the point of activation of the regional response team, the typical coordinating body for most ports.

Essentially the same Federal, State, and local municipal agencies are represented on both teams, but the multi-agency local response team has the advantage of industry's direct participation. In the recent *Presidente Rivera* spill, the multi-agency local response team was the coordinating authority.

While the Coast Guard has responsibility for spills in waters surrounding New Jersey, for spills on land, and spills on the major inland navigable streams, the responsibility for regional planning on oil spill response under the Superfund Amendments and Reauthorization Act rests with EPA Region II for New Jersey and New York and with EPA Region III for Pennsylvania and Delaware.

In addition to the Coast Guard and EPA, two other regional oil spill planning cooperatives are noteworthy: one is the Clean Harbor Cooperative, and the other is the Delaware Bay and River Cooperative.

The State of New Jersey, itself, through the New Jersey State Police Office of Emergency Management, is tasked with planning and coordinating all the State resources needed to mitigate a state of emergency declared when declared by the Governor.

Within my own department there are considerable resources available for initial response, damage assessment, and supervision of cleanup efforts. Within the Department, the Bureau of Emergency Response is tasked with overseeing all emergency cleanup actions. This 14-person elite unit can call upon additional resources as needed through the Department's emergency response coordinator. The emergency response coordinator ensures currency of a detailed contingency plan which not only establishes priorities for response activities, but also provides a methodology for integrating the varied capabilities of the Department's multiple divisions in the event of significant emergency.

Such resources, though adequate for most emergencies, have their limitations when addressing major releases. In addition, under the State of New Jersey's Compensation and Control Act, the Department has at its disposal a fund which is available for response purposes. This fund may be utilized with an established contract with three of the State's largest cleanup firms in the event the responsible party is unknown, unwilling, or unable to initiate appropriate response. Such resources are of finite nature, however, and do not lend themselves well to major incidents.

The sounding message here is that for small and moderate spills the State of New Jersey has capacity to respond and protect its own shoreline in the event the Federal response is inadequate. But for major spills of 100,000 gallons or more, rapid Federal response is an absolute necessity to reduce the economic and environmental impacts of petroleum spills. That response in past Delaware River spills has been uneven. The mechanisms to put into place the resources and nature of expertise needed to deal with major spills are too slow.

The Coast Guard apparently prefers allowing the responsible party to take charge of the cleanup rather than federalize the cleanup of oil spills on the Delaware. The federalized spill off Newport, Rhode Island, was an exception to this rule, and the quality of that response appeared markedly superior.

I hasten to add that in this Delaware River spill the responsible party rapidly declared a willingness to pay for the cleanup; nevertheless, a fast initial Federal response later turned over to the responsible party to continue could limit the impact of oil spills more effectively.

Senator BAUCUS. Is that your last point?

Mr. BURKE. It was not, but I will be happy to submit written testimony.

Senator BAUCUS. We have four or five minutes remaining before Senator Lautenberg and I have to get to the floor to vote. We will recess for about 10 to 15 minutes and immediately return.

Thank you very much.

[Recess.]

Senator BAUCUS. Our final witness of this panel is Mr. Ron Lambertson.

Mr. Lambertson, why don't you proceed?

STATEMENT OF RONALD E. LAMBERTSON, REGIONAL DIRECTOR, REGION IV, U.S. FISH AND WILDLIFE SERVICE

Mr. LAMBERTSON. Thank you, Mr. Chairman.

I am the Regional Director of the U.S. Fish & Wildlife Service for the Northeast Region of the U.S. It is my pleasure today to discuss the U.S. Fish & Wildlife Service's oil spill preparedness and responses by our region during the most recent two oil spills in Rhode Island and Delaware.

The U.S. Fish & Wildlife Service and the Department of the Interior are very concerned for our trustee natural resources when oil is spilled. As you may already be aware, Secretary Lujan did personally view both of these sites within several hours after the incidents.

With regard to the Rhode Island spill, the field response of the Fish & Wildlife Service is assigned to the local refuge manager at the Ninigret National Refuge Complex in Charlestown, Rhode Island.

One of the areas there about which we were very concerned is the beach on that national wildlife refuge where we have four pairs of piping plovers that were sitting on eggs or were brooding their chicks. The piping plover is a Federally- listed threatened species.

Another area of concern was the wetlands at the new Pettaquamscutt Cove National Wildlife Refuge. A Service pilot made overflights to locate birds and oil slicks that were of concern in that area. When oil was within a few hundred yards of the Trustom Pond National Wildlife Refuge, we worked with the State and EPA personnel late into the night to put over 3,000 feet of absorbent boom to keep the oil off of that beach. There was a light sheen of oil on that beach, but apparently there was no direct damage.

With regard to the Delaware oil spill, Service lands along Delaware Bay include that Supawna Meadows National Wildlife Refuge, Bombay Hook National Wildlife Refuge, Tinicum National Environmental Center, and Prime Hook National Wildlife Refuge. The refuge manager at Tinicum was our field response coordinator.

Service field response people spent much time identifying sensitive areas.

As has already been mentioned, over 120 oiled Canada geese were found and cleaned. Thus far, nine of these birds have died.

The Pea Patch Island area of the river contains a rookery with several thousand wading birds—migratory birds in this case. The shoreline of the island was hit heavily with oil, but the birds seem to have avoided it.

Our national wildlife refuge at Supawna Meadows was heavily oiled, and there was damage to some of the marshes. But as far as long-term impacts, we do not yet know.

Oil has come ashore in Delaware wetlands where there is an ongoing cleanup effort. Fortunately, it has not yet gotten down to, and it will not get down to, the large national wildlife refuges.

The Service is conducting an in situ bioassay with fingerling striped bass. Just the week before the oil spill on the Delaware Bay we had concluded some research with the States of New Jersey, Pennsylvania, and Delaware and found that what little striped bass restoration and reproduction was occurring in the Delaware Bay naturally occurred at the site where the oil spill occurred. So we were very concerned to find the next week a major oil spill at the site where we found that the striped bass was doing a little reproducing. So we have gone back to that area with some small striped bass to try to figure out if there is some damage to the small striped bass that may still be there.

While there has been some loss of fish and wildlife resources, acute damage to the Department of Interior trust responsibilities for which the Fish & Wildlife Service has responsibility seems, in this case, to have been avoided.

We do not, at present, have any good estimates of the long-term effects of oil on the fish and wildlife resources that we have trust responsibility for. Oil spill responses required the Service to divert its staff and funding from planned projects to support the emergency response effort. If a spill is not declared a Federal spill by the Coast Guard, no up-front funding source is available for our emergency responses.

Enactment of the Administration's Comprehensive Oil Spill Liability Bill, which the Coast Guard mentioned, would help to provide these funds.

Mr. Chairman, that concludes my summary.

Senator BAUCUS. Thank you very much, Mr. Lambertson.

As I understand it, the Department is required to conduct two evaluations—one to determine the cost of restoring fish and wildlife resources; and the other to assess the value of lost uses such as hunting, fishing, and recreation—and that the final damage estimate is to be based on the lesser of the two alternatives; is that correct?

Mr. LAMBERTSON. Yes.

Senator BAUCUS. Won't that always underestimate the damage to fish and wildlife resources that have little or no commercial value?

Mr. LAMBERTSON. Well, Mr. Chairman, I was not involved in preparing those regulations, and they are in litigation at the current time. But the Superfund Bill did require the Department to devel-

op these regulations to assess the damage to our trustee responsibility for natural resources.

The approach that was taken is pretty much the approach that has traditionally been taken with the common law. If you injury or damage my property you have your choice: you can either pay to repair it, or you can pay to replace it. If you do damage to my automobile, you can declare it a total loss and buy me a new one or pay to have it fixed. So that is sort of the approach that was taken with these regulations.

As I said, the regulations are very controversial. They are in litigation. If there is one good thing that comes out of these oil spills, it might be an opportunity to apply these new regulations really for the first time to a couple of spills and see how well they work.

Congress I think was very concerned about this approach. When they passed the Superfund bill and the reauthorization, they required that that process be looked at every two years.

Senator BAUCUS. But did the Superfund provisions require the common law approach?

Mr. LAMBERTSON. Pardon me?

Senator BAUCUS. Did the Superfund provisions require the common law approach?

Mr. LAMBERTSON. No. The Superfund provisions merely directed the Department of the Interior to prepare some regulations. The approach that was taken was sort of a traditional "Here is the way it has always been done before" approach.

Senator BAUCUS. But were there any restrictions in the law on the approach that the Department should take?

Mr. LAMBERTSON. No. The law was quite general. It just said to develop an approach for assessing value.

Senator BAUCUS. How does the Department assess lost uses of fish and wildlife that have little or no commercial value?

Mr. LAMBERTSON. That's the dilemma. That's where the common law approach breaks down. If you are talking about damage to salmon that have a commercial value, you can pretty much figure what it is going to cost to replace salmon or what a salmon is worth. But when you start talking about eagles, endangered species, and other birds, the process can become almost laughable.

Senator BAUCUS. Yes.

Mr. LAMBERTSON. It is very difficult to deal with.

Senator BAUCUS. And how do you deal with it?

Mr. LAMBERTSON. Well, we have had a number of suggestions. One suggestion by the environmental groups in the litigation is that you seek the value based upon what the public thinks it is worth. If you take a public survey and you say, "In your view, what is an American eagle worth?" Based upon that survey, you assess values.

Senator BAUCUS. How does the Department today make that evaluation, apart from suggestions made by others as to how to do it. How does the Department, in fact, make that determination today?

Mr. LAMBERTSON. What the Department has is a very complex computer program that takes into consideration impact on the food chain, impact on the habitat, as well as direct impact on the spe-

cies, themselves. So it is a combination of values that has been put into the computer program. We call this the "type A" regulations.

Senator BAUCUS. And what generally—not being too specific—determines that program? A program has to be written by somebody.

Mr. LAMBERTSON. Yes. And the program was written by some university professors.

Senator BAUCUS. I'm not asking you who wrote it; I'm asking you what the basic principles are in writing that program.

Mr. LAMBERTSON. With specifics to the value of non-marketing species, I'm really not sure. I was not involved. But it was a very comprehensive contract with economists at the University of Rhode Island.

Senator BAUCUS. In many cases, there is a time lag— lost fishing seasons. Who knows what else might be involved? Sometimes it takes a while to restore a value that has been lost or a natural resource value that has been lost.

Wouldn't it make more sense for the damage estimate to be based on the sum of the restoration cost plus the value of the loss to use rather than the lesser of the two?

Mr. LAMBERTSON. Well, the lesser aspect is the very controversial aspect of those regulations.

Senator BAUCUS. I'm asking your opinion.

Mr. LAMBERTSON. In my opinion, if you have a way— let's take a fish species that can be produced in a fish hatchery. If you lose a large run of fish and it is striped bass and we can tell you exactly what it costs to restore a striped bass run in a fish hatchery, then that is very easy to figure out the cost.

Senator BAUCUS. That about the fisherman who has lost his fishing season?

Mr. LAMBERTSON. The point was made that currently under Federal law their values are not recognized because they do not have a property right. But, in my personal view, they should have some right to seek compensation.

Senator BAUCUS. Thank you.

Senator Chafee.

Senator CHAFEE. Thank you, Mr. Chairman. I apologize for being late, particularly to hear Mr. Lambertson. These are hectic days over here, and I'm trying to be two places at once.

Mr. Lambertson, one researcher at the University of Rhode Island has painted a gloomier picture than you have, and particularly talking about the long-term effects on the ecosystem. Perhaps Mr. Markos could address this, likewise, or Mr. Annarummo. They're talking about a dramatic algae bloom later this summer and predicted we'd lose an entire generation of smaller fish species due to the high concentrations in coves and inlets. I know this is a risky business trying to predict. What do you think of this worst case scenario?

Mr. LAMBERTSON. Mr. Chafee, I'm not familiar with that specific concern. I did talk this morning with the EPA lab people from Narraganset and the NOAA people, and they were quite positive in their statement that findings do not indicate any residual impacts. The oil, except for a couple of very small coves, has pretty well disappeared from Narraganset Bay. I'm like you, though. I'm very concerned. Just because you can't immediately see a bunch of dead

birds, you should not assume that there hasn't been a problem to the aquatic ecosystem.

While you were gone I mentioned that in the Delaware River we had just finished a study of finding out where the striped bass might be reproducing in the Delaware River. We didn't think there was any natural reproduction. We found there was a limited amount of natural reproduction in the Marcus Hook area. We found that the week before the oil spill.

So we have no way of going back and finding out what happened to the annual reproduction for the striped bass, but we might have lost that year's reproduction for Delaware Bay—a very limited reproduction, I might add.

Senator CHAFEE. But at least it is something.

Mr. LAMBERTSON. But it is not the same as seeing a bunch of dead birds or dead fish on the shore.

Senator CHAFEE. Not at all.

Mr. LAMBERTSON. The larval at this stage are probably less than one half inch in length, and if they disappear it is almost impossible to know where they went.

Senator CHAFEE. Mr. Markos, do you have anything to add? Or Mr. Annarummo?

Mr. MARKOS. I will let Mr. Annarummo answer this, Senator, but we are concerned that there may be long-term impact. The State is planning to spend in the neighborhood of $200,000 for research on that impact. And there are areas that we are concerned about.

Senator CHAFEE. I suppose what good does it do to worry? There's not an awful lot you can do about it, I suppose.

Mr. Annarummo.

Mr. ANNARUMMO. Well, Senator and Mr. Chairman, I think first of all you have to stabilize the situation. That's what you have been hearing about all morning. But you can't lose site of the fact. I think within the DEM we are optimistic that we were fortunate, but we conservatively feel you still have to look at this.

A whole cove still has over a foot of contamination in it that we're still treating. We have seen impacts.

The results all look favorable coming back, but I think your point about the algae is well taken. We, too, at DEM are starting to see some early signs of that. We don't know the answers on a number of other issues, and until the proper follow-up is done by the University and DEM I think it would be premature to be too optimistic or too pessimistic.

Senator CHAFEE. Thank you all very much for coming. We appreciate it.

Senator BAUCUS. Thank you very much. We appreciate it.

Our final panel consists of Mr. Ed Roland, President of AMOCO Transport Company. He is accompanied by Mr. Sam Gillespie, Assistant General Counsel for Mobil Oil.

Mr. Roland, I apologize for the delay. Why don't you proceed?

STATEMENT OF ED ROLAND, PRESIDENT, AMOCO TRANSPORT CO., ACCOMPANIED BY SAM GILLESPIE, ASSISTANT GENERAL COUNSEL, MOBIL OIL CORP.

Mr. ROLAND. Thank you, Mr. Chairman. We have a summary that I'd like to read.

My name is Ed Roland, President of AMOCO Transport Company and chairman of the American Petroleum Institute's Marine Transportation Committee.

With me is Sam Gillespie of Mobil, and together we are representing API. We welcome this opportunity to comment on oil spill response and cleanup.

Obviously, our industry is in the throes of a difficult and challenging period. We are making a major effort within the industry and with government at all levels to make improvements in response, containment, and cleanup of oil spills. Progress has been made, but much remains to be done.

On April 7, Richard Morrow, Chairman of AMOCO Corporation and Chairman of the Board of API, announced that the API board of directors had established a top-level task force to review industry operations in the areas of oil spill prevention and response. The task force was comprised of the chief executives of presidents of the following companies: AMOCO, ARCO, BP, Chevron, Exxon, Mobil, Shell, and Texaco.

API's oil spill task force has completed its work and issued its report and recommended that significant action be taken by the industry in three major areas: prevention, response, and research.

The task force's recommendations are, in many ways, consisted with the direction being taken by the Administration and Congress on this issue. We believe that the task force's recommendations can provide the basis for a meaningful dialogue in developing a cooperative approach to the oil spill issue.

The task force's recommendations presently are being implemented as follows. The prevention portion of the program is being handled by the API Marine Transportation Committee, which I chair.

The response and research parts of the program will be implemented by a new petroleum industry response organization called PIRO. To date, companies representing almost three- quarters of the waterborne receipts of foreign crude oil, Alaskan crude, and heavy fuel have joined PIRO, and many more are considering membership. PIRO's initial organizational meeting will be held next week.

I would like to give an overview of the recommendations, starting with response.

PIRO will be established to consist of a headquarters group and five regional response centers. It is recommended that the headquarters be located in Washington, with the regional response centers located in the New York tristate area, Norfolk, New Orleans, Long Beach, and Seattle.

The headquarters staff would coordinate PIRO multi-region response. Regional response centers would coordinate their activities with the Federal Government's regional response teams and respond to spills beyond local capability. Each center would be

manned around the clock with dedicated, trained personnel, and equipped with properly-maintained recovery, dispersal, and shoreline cleanup equipment. Each center would be sized to have a 30,000 ton spill response capability.

The capital cost and annual operating costs will be funded by industry. This would entail a charge to members based on crude and heavy fuel carried by sea and received by industry members at U.S. facilities.

The API task force also recommends that the Secretary of Transportation manage major spills. The Secretary has a legal responsibility to see that spills are promptly and adequately dealt with, and, through the Coast Guard, maintains an organization to fulfill that responsibility, with support vessels and aircraft readily available.

Through its role on the national response team and its involvement in regional response teams, the Coast Guard is well positioned to provide a consistent, nationwide approach to spill management, and the Secretary is better positioned than industry to resolve the diverse interests of Federal, State, and local agencies which must be coordinated to allow quick and decisive spill management. Thus, the concept is that PIRO would provide equipment and skilled, dedicated people to respond to major spills under the leadership of the Secretary of Transportation.

With respect to prevention, we recommend several changes that will make tanker operation more pollution resistent. Key recommendations include: mandatory participation in vessel traffic systems; Federal legislation for improved standards of pilots; Coast Guard authority expanded to allow for drug and alcohol testing in relationship to licensing; the International Convention on Standards and Training to be ratified by the Senate; ship-specific oil prevention and control contingency plans should be required, but ship oil response equipment would not be effective and would present safety hazards in its deployment; the merits of full application of ballast sides, reduced tank size, and double bottom construction should be carefully studied by the National Academy of Sciences or another independent body.

With respect to research, we are recommending a five-year program of $30 to $35 million to initiate work in those areas which appear to offer the greatest level of opportunity.

In conclusion, the industry believe that the API oil spill task force initiatives will help prepare this Nation to better handle oil spills in a swift and effective manner.

Senator BAUCUS. Thank you, Mr. Roland.

I have two general questions. One goes to the adequacy of the contingency plan, and the second is prevention.

First, the contingency plan. As I mentioned in my opening statement, it struck me that the plan assumed best conditions—optimal conditions. I'm not an expert in the industry. I don't know whether tankers only travel daylight or only travel in the best weather or only travel when other transportation is immediately available, but I would guess that the answer to all those questions is no. Tankers don't always travel under optimal conditions.

Mr. ROLAND. That's correct, Senator.

Senator BAUCUS. So why is the API developing a contingency plan that is not on square with reality; that is, it doesn't have worst case scenarios as well as best case scenarios? We live in a real world. We don't live in the stylized, mythical, hypothetical world of convergence of optimal conditions—where each condition is optimal. The probabilities are that maybe one or two will be optimal, but maybe two or three others may not be optimal. So why doesn't the report represent reality?

Mr. ROLAND. Senator, this effort on the part of the industry represents our best effort to put together a plan which represents a reasonable response to a improbable threatened spill.

Senator BAUCUS. I'm sorry? To an improbable what?

Mr. ROLAND. Improbable threatened spill; that is, the probability of another catastrophic spill happening is remote, but we recognize that it is possible, and therefore we are proposing a response plan which, on the basis of the parameters of the plan, represents a substantial immediate response that is equivalent to the *Exxon Valdez* spill, and then, as a backup, there are four additional regional response areas which have additional ability to respond and, in totality, represent a significant overage in comparison to the *Exxon Valdez.*

I'm not trying to minimize our effort here. What I'm trying to show is that this plan is based upon what we consider to be a very reasonable basis for planning.

Senator BAUCUS. Correct me if I am wrong: I still think that the plan assumes these best conditions. Why is there not a worst case scenario?

Mr. ROLAND. I think, to answer your question—If I understand what you're driving at—the proposal, as it is laid you, does talk about getting equipment and so on in a five hour or six hour timeframe under best conditions, which is what you are focusing on.

Senator BAUCUS. Correct.

Mr. GILLESPIE. I think that what we recognize, as indicated in the outset of the report, that the likelihood of having best conditions in any situation is pretty slim. What we are saying here is that you cannot assume that we will get that equipment there in five or six hours. We're going to make a best effort to get the equipment there as fast as we can. If it is at nighttime—and I think that Senator Lautenberg referred to this—you have situations where you cannot get that equipment in place in five or six hours.

What we have set up is a system which we think will get the equipment in even under adverse circumstances as quickly as can be. It is not geared just to be in best circumstances. What we did was give an example of what was best circumstances. The equipment would be deployed under whatever circumstances existed, but it would be delayed five, six, or seven hours if the situation were such that it was nighttime or storms.

Senator BAUCUS. But the point is that you planned the number of centers and the amount of equipment on the best-case scenario. Why did you not also develop a contingency plan for more centers, more personnel, more equipment, assuming worst weather, assuming nighttime hours, assuming no equipment, assuming no fishermen? Why not? That's going to occur some time.

Mr. GILLESPIE. I think the centers were selected not by best situation, but rather by the capability to get the equipment to the likely locations of a spill as quickly as possible. You can have a situation where you'd have two dozen centers all around the United States, and if you have a spill that occurs at 6:00 or 7:00 at night you couldn't do a thing even if you had a center right there.

Senator BAUCUS. Then why doesn't the plan so state?

Mr. GILLESPIE. Then it is a weakness in the plan, but it should be there.

Senator BAUCUS. Frankly, that's my impression. It is more than a weakness. To be honest with you, it is not fully representative of realistic conditions, and it is so unrepresentative of unrealistic conditions that it reminds me, frankly, of the Alyeska plan. I read the Alyeska plan, and I was astounded. There were only several pages that dealt with a 200,000 barrel contingency, and they, too, assumed all best case scenario.

It is obvious that Alyeska contracted out the plan to some contractor to develop a plan. That contractor received a lot of money and developed a plan that was put on a shelf and nothing happened. To be honest with you, I get the same feelings when I read this report. It is an impression. I don't get the sense that API has really done what it should do—that is, in good faith show that some conditions are good and some conditions are not good and here are some options and, if all of the optimal conditions are met, these consequences follow; however, in the worst case these other consequences follow. That's reality, it seems to me. You can't always assume that you're going to have optimal conditions available, can you?

Mr. GILLESPIE. You can't. I think the report recognizes that there are situations where you will have bad conditions and you won't meet these time lines.

Senator BAUCUS. Well, it doesn't come across that way.

Senator Chafee.

Senator CHAFEE. Thank you, Mr. Chairman.

On page 2 of your testimony, Mr. Roland, you talk about coordinating with the U.S. Government and meaningful dialog in development of a cooperative approach. Who do you talk to in the U.S. Government? Who is it? Is it the Secretary of Transportation?

Mr. ROLAND. We've talked to the Secretary of Transportation, and also the Commandant of the Coast Guard.

Senator CHAFEE. But, of course, he works for the Secretary of Transportation.

Mr. ROLAND. Yes.

Senator CHAFEE. What I'm trying to figure out here, as I look at your plan it looks splendid on paper and it supplements some of the things that the Federal Government is doing, but we don't want to reinvent the wheel and, at the same time, we want to use our resources in the very best fashion.

For example, research. One of the things that has come out quite clearly out of all of this business is that these booms are lovely but they don't work. They didn't work in Narraganset Bay with the light oil. They had those booms. I think those booms were around the *World Prodigy* within two hours or less; yet, the oil went under them or out of them somehow. The same was true in Alaska with

the heavier oil. So what is going to happen? You're going to do some research with who? With the Federal Government?

Mr. ROLAND. No. We're going to sponsor independent research through the Petroleum Industry Response Organization, PIRO.

Senator CHAFEE. And what do you think you can come up with?

Mr. ROLAND. We don't know, with research you never know what you're going to come up with.

Senator CHAFEE. What do you envision?

Mr. ROLAND. Well, we think——

Senator CHAFEE. Take the boom situation.

Mr. ROLAND. Well, certainly there are configurations of booms which will work better than other configurations, and we think that with respect to boom design that there are improvements that can be made. It may be that what we develop is something which is a deeper boom, or perhaps we find that the way that booms are distributed or utilized could be improved in certain ways. We don't know what we are going to find with respect to booms. We know that, as you point out, booms are not particularly effective. They work sometimes, but they are not ideal. We recognize, therefore, that there are improvements that can and should be made. That's what we're talking about doing—looking for ways to improve the functioning of booms.

Senator CHAFEE. What do you think of skimmers?

Mr. ROLAND. Well, we also recognize that skimmers are not perfect pieces of equipment, as well. Anything working in that kind of environment is in a very difficult environment and difficult to make work properly. Clearly, there are improvements that can be made in the design and operation of skimmers, as well, but that's what the research is about. That's what we're talking about getting into.

Senator CHAFEE. Some of these are a little unrealistic. For example, a vessel configuration, what can we do about that? We're dealing with foreign vessels that come here. The *World Prodigy* is a foreign vessel. I'm sure it was built abroad. What can we do? What do you see happening?

Mr. ROLAND. Well, what we envisioned is something similar to what happened about ten years ago, which was an international convention which developed standards of design for tank vessels which improved their resistance to pollution. What we would expect is that perhaps vessel tank sizes would be reduced; that is, the tank size within a vessel would be reduced.

Senator CHAFEE. You mean the compartments?

Mr. ROLAND. The compartment sizes, so that if a compartment were punctured and just the contents were spilled it would be a smaller spill.

We think that an improved arrangement of protective ballast in the sides of vessels would improve its resistance to penetration through collisions, which are probably the most probable cause of a spill. And we also recognize that another look is really demanded on the issue of double bottoms.

Double bottoms were studied a number of years ago and haven't been looked at for a long time. I can tell you that the international community, as well as the Coast Guard, agreed that double bottoms were an inappropriate design application for tankers. The reason

for that is that double bottoms affect the survivability of the ship. If a vessel runs aground and punctures the double bottom, you immediately fill compartments that previously had not carried cargo, and the vessel buoyancy is reduced. That reduction in buoyancy will cause the vessel to sink further and make it more difficult to get off whatever it has run aground on and, therefore, affect the salvageability of the vessel, and hence the salvageability of the cargo, itself.

So there have been, in the past, intergovernmentally, a weighing of the potential of a smaller spill which might come from a minor grounding versus a serious spill which might come from a serious grounding, and the potential for loss of the ship and loss of the total cargo. The balance was that the vessel should not be designed with double bottoms.

Senator CHAFEE. You heard me describe this closing off of the air vents going into the tanker hull. What do you think of that?

Mr. ROLAND. Well, it is an idea that might have some potential. That was an idea that I think originated in Sweden recently, and I read about it for the first time just a month ago, and I think it is a new idea that may work. It may help. In particular, if the penetration is at the bottom of the tank I think it might help to retain a greater percentage of the cargo in that tank than otherwise would be retained.

Senator CHAFEE. I was astonished at your figures that the members of your group—is the name PIRO?

Mr. ROLAND. Yes.

Senator CHAFEE [continuing]. Will include vessels carrying three quarters of all the foreign crude imports into the United States.

Mr. ROLAND. That's a basis for billing the membership of PIRO. We know how much crude and persistent oil is delivered within the United States by tanker, and each refiner reports his total quantity, and then you take a percentage of the total number and determine who pays what percentage of the total cost of operating PIRO. That number does not represent the coverage by PIRO. PIRO will be available to answer to any spill in U.S. waters.

Senator CHAFEE. I appreciate that. What worries me is these ideas are going to apply to your membership. What do we do about a *World Prodigy* situation? There he is, sort of a tramp tanker.

Mr. ROLAND. I agree with your sensitivity to that issue, and we have made some recommendations with respect to tanker operation. One of them has to do with pilotage. We think that there should be—we agree with the Coast Guard—a stronger Federal line of authority that regulates the operation of pilots. We think that discipline needs to be improved in the area of pilot operation and qualifications should be periodically assured.

Can I also add to that that the Coast Guard's ideas with respect to vessel traffic systems are also something which we endorse strongly. We think that there should be a mandatory compliance with vessel traffic systems wherever they exist. Today there is not, generally speaking, mandatory compliance with vessel traffic orders.

Senator CHAFEE. Can you retrofit existing vessels with bow thrusters, for example?

Mr. ROLAND. You could retrofit them, but I doubt that it would have any positive effect whatsoever.

Senator CHAFEE. You mention it.

Mr. ROLAND. We mention it in areas in which there is an immediate hazard existing in the navigational environment. What we say is that a vessel which is equipped with bow thrusters or twin screws does not necessarily need to have tug assistance when navigating in the environment of hazards. That was the point that we were trying to make there.

Senator CHAFEE. Well, we will be following this, obviously. Is there anything to the fact that we had to use a Soviet skimmer? Was it effective up there?

Mr. ROLAND. I really can't give you any first-hand information on that. I can tell you that the rumor is that it was very ineffective, but I don't know for sure. I can tell you, also, though, that that skimmer has been returned to the Soviets and there is stationed an American skimmer up there now.

Senator CHAFEE. Well, I wasn't getting into a discussion here on which was the best; I was just wondering whether the skimmers did any good. The Soviets, as I understand, had a very large skimmer.

Mr. ROLAND. My understanding is that it wasn't an effective skimmer.

Senator CHAFEE. Fine. Thank you very much. We'll be following what you do with interest.

Senator BAUCUS. Mr. Roland, I have one question on double hulls. First of all, how many compartments are there in an average tanker?

Mr. ROLAND. About 16 or 18. It depends on the tanker design.

Senator BAUCUS. Wouldn't an additional number of compartments in the double hull help minimize the problem of ballast and sinking and so forth?

Mr. ROLAND. I think there is a strong likelihood that an additional number of compartments would help with respect to spillage. We also think that there is a strong likelihood that additional ballast tanks in the sides would also help. But what we have suggested is, because we haven't gotten universal agreement on those issues, is that the National Academy of Science study those issues and make recommendations.

Senator BAUCUS. Is there any way you can write an addendum to your report which would indicate the number of centers that would be necessary and the amount of equipment necessary for there to be an adequate response in two to four hours assuming bad weather, midnight, no fishing vessels available—a worst case scenario? Is that possible? And then the industry and the Congress can make a determination and judgment as to how much people are willing to spend jointly to account for that worst case scenario.

Mr. ROLAND. Senator, I understand your concern and I'm very sympathetic to it, but I have to say that if the weather is very bad it is impossible to deploy anything. If it is nighttime, it is almost impossible to identify the location of the spill. So I think that if you superimpose requirements that relate to weather which is worse than what we're talking about, it is not really going to make a significant difference in the ability of this system to respond.

Senator BAUCUS. Well, it seems to me that it will make a difference, at least in the sense that the response will be occurring many hours later; that is, if the spill occurs at dusk, I assume that the response, in fact, will be in place later than if the response occurs at dawn, all other conditions being equal. It will make a difference.

Mr. ROLAND. That's a very difficult question to answer. I would say no, but——

Mr. GILLESPIE. Maybe what is helpful is that what you do is you can have the manpower and equipment at the staging area approximate to the spill in a very short period of time, regardless of the weather. The problem comes with the actual deployment of the boom by the men if the spill occurs in adverse weather conditions and if it is at night, because you just can't see the oil on the water to know where to put the boom.

So the centers that are selected here were done with the view that we can get the equipment to the deployment site—to the nearest beach head, to the nearest docks—in the time frame described there. Our problem comes with bad weather and nightfall and literally getting it to the water and on the water where the spill is. So what you've got there is a description of locations of sites that were really selected from a point of view of where is the best airport availability, where is the maximum flow of tankers going in and out. That was what was looked at as much as the time frame.

Senator BAUCUS. I appreciate that. You have these nice, wonderful, color charts here, and they're pretty, but lapse time from Cape May to New York, Boston, all begins at dawn and all ends—it just seems to me it would be helpful to have another pretty, colorful chart, just as pretty, just as colorful, to show lapse time assuming worse conditions.

Mr. GILLESPIE. We can certainly take a look at adverse conditions and put together a time chart that would indicate the impact of some of that.

Senator BAUCUS. Thank you very much.

Senator BAUGUS. Thank you, gentlemen, for coming.

Mr. ROLAND. Thank you.

Mr. GILLESPIE. Thank you.

Senator BAUGUS. The hearing will now recess. The subcommittee will reconvene July 26th to consider various oil spill bills pending before us which Senator Mitchell, Senator Chafee, Senator Lieberman, and I have introduced. It is my intent that the subcommittee will develop a single, comprehensive oil spill bill for consideration by the full committee prior to the start of the August recess.

The subcommittee stands in recess.

[Whereupon, at 12:29 p.m., the subcommittee was adjourned, to reconvene on Wednesday, July 26, 1989.]

[Statements submitted for the record follow:]

U.S. Department of Transportation
United States Coast Guard

Commandant
United States Coast Guard

Washington, D.C. 20593-0001
Staff Symbol:
Phone:

DEPARTMENT OF TRANSPORTATION

U. S. COAST GUARD

STATEMENT OF ADMIRAL PAUL A. YOST JR.

ON RECENT OIL SPILLS

UNITED STATES SENATE

SUBCOMMITTEE ON ENVIRONMENTAL PROTECTION

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

13 JULY 1989

Admiral Paul A. Yost, Jr.
Commandant
United States Coast Guard

Admiral Paul Alexander Yost, Jr. became the 18th Commandant of the United States Coast Guard on May 30, 1986. He was nominated to that position while serving as Commander Atlantic Area, Commander Maritime Defense Zone Atlantic and Commander Third Coast Guard District in New York City where he was assigned in 1984.

In these roles, the Admiral was responsible for Coast Guard operations in the Atlantic, Caribbean and Gulf of Mexico including drug interdiction, maritime law enforcement and search and rescue, as well as maritime coastal defense under the authority of the Commander in Chief, Atlantic Fleet, United States Navy. Prior to his Third District assignment, Admiral Yost was Chief of Staff at Coast Guard Headquarters in Washington for three years, where he managed planning, programming and budgeting for the service. He was promoted to flag rank in 1978 and served as Eighth District Commander in New Orleans for three years.

Admiral Yost's management and operational positions included Chief of Staff and Chief of Operations for Seventeenth Coast Guard District in Alaska in 1975 and Commander Task Group 115.3, a combat command in Vietnam, in 1969. In addition, he served as Special Assistant to the Deputy Secretary, Department of Transportation and as an Alternate Delegate on the U.S. Law of the Sea Delegation. Admiral Yost was Captain of the Port, Seattle, Washington in 1974, Special Assistant to the Chief Counsel, Coast Guard Headquarters in 1972 and Chief, Bridge Branch, Aids to Navigation Division, Headquarters in 1970. Seagoing duty included command of the Coast Guard Cutter RESOLUTE in San Francisco, California in 1966.

Admiral Yost was graduated from the Naval War College at Newport, Rhode Island in 1964. He received master's degrees in international affairs from George Washington University in 1964 and in mechanical engineering from the University of Connecticut in 1959. He also completed course work toward a master's degree in business administration. Admiral Yost received a Bachelor of Science degree from the U.S. Coast Guard Academy in New London, Connecticut in 1951.

The Commandant's awards include two Distinguished Service Medals, Silver Star, Legion of Merit with combat "V" and a gold star, Meritorious Service Medal, Combat Action Ribbon, Korean Service Medal and United Nations Service Medal. He also received the Cross of Gallantry with Silver Star (RVN), Presidential Unit Citation, Navy Meritorious Unit Commendation and the Distinguished Service Medal (RVN).

A native of St. Petersburg, Florida, Admiral Yost is active in church, school and community affairs. He was awarded the Silver Beaver Award by the Boys Scouts of America.

Admiral Yost is married to the former Jan Worth of Wakefield, Massachusetts. Mrs. Yost earned a degree in communications from the University of Maryland. They have five children: Linda, Paul III, David, Lisa and Christopher. The Yosts reside in Chevy Chase, Maryland.

DEPARTMENT OF TRANSPORTATION
U.S. COAST GUARD
STATEMENT OF ADMIRAL PAUL A. YOST
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
SUBCOMMITTEE ON ENVIRONMENTAL PROTECTION
UNITED STATES SENATE
13 JULY 1989

GOOD MORNING, MR. CHAIRMAN. I AM PLEASED TO MEET WITH YOU AND THE OTHER DISTINGUISHED MEMBERS OF THIS SUBCOMMITTEE TO DISCUSS THE COAST GUARD'S ROLE IN RESPONSE TO THE RECENT MAJOR OIL SPILLS IN RHODE ISLAND, THE HOUSTON SHIPPING CHANNEL, AND THE DELAWARE RIVER. ACCOMPANYING ME TODAY ARE, CAPTAIN ERIC J. WILLIAMS, CAPTAIN OF THE PORT PROVIDENCE, CAPTAIN WILLIAM A. MONSON, CAPTAIN OF THE PORT HOUSTON, AND CAPTAIN LARRY A. MURDOCK, CAPTAIN OF THE PORT PHILADELPHIA.

THE COAST GUARD RESPONDED TO THESE CASES CONSISTENT WITH THE VARIOUS PROVISIONS OF THE CLEAN WATER ACT, THE NATIONAL CONTINGENCY PLAN, AND A MEMORANDUM OF UNDERSTANDING BETWEEN THE COAST GUARD AND THE ENVIRONMENTAL PROTECTION AGENCY (EPA). UNDER THE NATIONAL CONTINGENCY PLAN, A FEDERAL PREDESIGNATED ON-SCENE COORDINATOR IS ASSIGNED TO ENSURE THAT APPROPRIATE RESPONSE ACTION IS TAKEN WHENEVER THERE IS A DISCHARGE OF OIL INTO THE NAVIGABLE WATERS OF THE UNITED STATES OR A RELEASE OF HAZARDOUS SUBSTANCES INTO THE ENVIRONMENT. THERE ARE TWO ESTABLISHED ZONES OF RESPONSIBILITY, INLAND AND COASTAL, FOR RESPONSE ACTION. THE BOUNDARY BETWEEN THE COASTAL AND INLAND ZONES IS DETERMINED BY JOINT AGREEMENT BETWEEN THE EPA AND THE COAST GUARD AND IS DEFINED IN EACH REGIONAL CONTINGENCY PLAN. A COAST GUARD CAPTAIN OF THE PORT SERVES AS THE PREDESIGNATED ON-SCENE COORDINATOR FOR POLLUTION INCIDENTS OCCURRING IN THE COASTAL ZONE. THE COASTAL

ZONE IS COMPRISED OF THE WATERS IN THE EXCLUSIVE ECONOMIC ZONE, EXTENDING APPROXIMATELY 200 MILES OFFSHORE, THE GREAT LAKES AND SPECIFIED PORTS AND HARBORS ON THE INLAND RIVERS. THE EPA PROVIDES PREDESIGNATED ON-SCENE COORDINATORS FOR THE INLAND ZONE. IN ACCORDANCE WITH A COAST GUARD/EPA MEMORANDUM OF UNDERSTANDING, THE LOCAL COAST GUARD CAPTAIN OF THE PORT IS THE PREDESIGNATED ON-SCENE COORDINATOR FOR ALL DISCHARGES OF OIL AND HAZARDOUS SUBSTANCES WHICH RESULT FROM A VESSEL CASUALTY OR VESSEL TRANSFER ACTIVITY WITHIN SPECIFIED PORTS AND HARBORS OF THE INLAND RIVER SYSTEM. THE EPA NORMALLY SERVES AS THE PREDESIGNATED ON-SCENE COORDINATOR FOR DISCHARGES WHICH OCCUR AT INDUSTRIAL FACILITIES, BULK STORAGE FACILITIES OR HAZARDOUS WASTE SITES, OR FROM NON-MARINE TRANSPORTATION CASUALTIES IN THE INLAND ZONE.

THE SPILL IN RHODE ISLAND

AT APPROXIMATELY 4:45 PM, FRIDAY, JUNE 23, 1989, THE GREEK-FLAGGED TANKSHIP WORLD PRODIGY RAN AGROUND ON BRENTON REEF JUST OUTSIDE OF NARRAGANSETT BAY, RHODE ISLAND. THE VESSEL WAS CARRYING APPROXIMATELY 8 MILLION GALLONS OF NO. 2 HOME HEATING OIL. NINE CARGO TANKS WERE DAMAGED AND APPROXIMATELY 290,000 GALLONS OF OIL WERE RELEASED INTO THE COASTAL WATERS OF RHODE ISLAND.

CAPTAIN ERIC J. WILLIAMS, THE COAST GUARD CAPTAIN OF THE PORT, PROVIDENCE, WAS THE FEDERAL ON-SCENE COORDINATOR FOR THE SPILL. AT APPROXIMATELY 5:15 PM, ONE-HALF HOUR AFTER THE SPILL, THE COAST GUARD FEDERALIZED THIS SPILL BECAUSE THE INSURER OF THE VESSEL WAS UNABLE TO CONTACT THE OWNER'S REPRESENTATIVE FOR AUTHORIZATION TO CONDUCT THE CLEANUP; HOWEVER, BY NOON ON JUNE

25, THE OWNER AGREED TO ASSUME FINANCIAL RESPONSIBILITY FOR THE CLEANUP, BUT THE COAST GUARD RETAINED FEDERAL CONTROL TO THE END. DIVERS WERE ON SCENE AT 6:25 PM, LESS THAN 2 HOURS AFTER THE GROUNDING, TO ASSESS THE VESSEL'S HULL DAMAGE. CONTAINMENT BOOM WAS PLACED AROUND THE VESSEL TO CONTAIN ADDITIONAL LEAKING. THE REGIONAL RESPONSE TEAM WAS ACTIVATED. THE ON-SCENE COORDINATOR REQUESTED THE ASSISTANCE OF THE COAST GUARD STRIKE TEAM, THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION'S (NOAA) SCIENTIFIC SUPPORT COORDINATOR, AND A SALVAGE MASTER FROM THE U.S. NAVY'S SUPERVISOR OF SALVAGE. BARGES WERE CONTRACTED TO OFF-LOAD THE CARGO REMAINING ON THE VESSEL. CONTAINMENT BOOM WAS STRATEGICALLY PLACED TO PROTECT SENSITIVE AREAS. CLEANUP CONTRACTORS WERE HIRED TO CLEAN THE SHORELINE IMPACTED BY THE OIL. SOME SHORELINE IMPACT WAS REPORTED. PLACING BOOM AROUND THE VESSEL, EVAPORATION OF THE MAJORITY OF THE OIL, AND AN OFFSHORE WIND MINIMIZED THE ENVIRONMENTAL IMPACT FROM THIS SPILL. THE SHORELINE CLEANUP WAS ACCOMPLISHED MOSTLY WITH OIL ABSORBENT MATERIAL AND VACUUM TRUCKS. THE CLEANUP WAS COMPLETED ON JULY 6, 1989, 13 DAYS AFTER THE GROUNDING.

THE SPILL IN HOUSTON, TEXAS

AT 6:20 PM, FRIDAY, JUNE 23, 1989, CAPTAIN WILLIAM A. MONSON, THE COAST GUARD CAPTAIN OF THE PORT, HOUSTON RECEIVED A REPORT OF A COLLISION BETWEEN THE PANAMANIAN-FLAGGED CHEMICAL TANKSHIP RACHEL B, AND THE U.S. OIL CARRYING BARGE, COASTAL 2514, RESULTING IN AN OIL SPILL IN THE HOUSTON SHIPPING CHANNEL. THE RACHEL B DAMAGED ITS BOW BUT RELEASED NO OIL. THE BARGE SUFFERED DAMAGE TO THREE CARGO TANKS AND RELEASED APPROXIMATELY 250,000

GALLONS OF HEAVY SLURRY OIL. THE OWNER OF THE DAMAGED BARGE ACCEPTED FINANCIAL RESPONSIBILITY FOR THE CLEANUP AND HIRED A LOCAL CLEANUP CONTRACTOR.

COAST GUARD PERSONNEL WERE ON SCENE AT 8:14 PM AND THE POLLUTION CLEANUP CONTRACTOR BEGAN BOOMING OFF SENSITIVE AREAS AT 8:25 PM. MOST OF THE SPILLED OIL MOVED INTO THE BAYPORT CHANNEL WHERE IT WAS RECOVERED USING CONTAINMENT BOOM, VACUUM TRUCKS, ABSORBENT MATERIAL, AND HAND TOOLS. CLEANUP OPERATIONS WERE CONDUCTED AROUND THE CLOCK. MUCH OF THE OIL WAS RECOVERED DURING UNFAVORABLE WEATHER CONDITIONS CREATED BY TROPICAL STORM ALLISON WHICH DROPPED MORE THAN TEN INCHES OF RAIN IN THE AREA. ON THE AFTERNOON OF FRIDAY, JULY 7, 1989, THE SPILL WAS FEDERALIZED AS THE OWNERS OPTED NOT TO COMPLETE THE CLEANUP. TODAY, CLEANUP OF APPROXIMATELY ONE MILE OF SHORELINE THAT WAS IMPACTED IS ALL THAT REMAINS. THE POTENTIAL FOR A LARGER SPILL WAS AVERTED BY OFF-LOADING THE CARGO WHICH REMAINED ABOARD THE TANK BARGE.

THE SPILL IN THE DELAWARE RIVER

AT APPROXIMATELY 4:46 AM, SATURDAY, JUNE 24, 1989, CAPTAIN LARRY A. MURDOCK, THE COAST GUARD CAPTAIN OF THE PORT, PHILADELPHIA RECEIVED A REPORT THAT THE URUGUAYAN-FLAGGED TANKSHIP PRESIDENTE RIVERA WAS HARD AGROUND AND RELEASING NUMBER 6 INDUSTRIAL HEATING OIL IN THE DELAWARE RIVER NEAR MARCUS HOOK, PENNSYLVANIA. THE INSURER FOR THE VESSEL ASSUMED FINANCIAL RESPONSIBILITY FOR CLEANUP AND HIRED A CLEANUP CONTRACTOR AT 5:40 AM. COAST GUARD PERSONNEL WERE ON-SCENE AT 6:30 AM. A NOAA SCIENTIFIC SUPPORT COORDINATOR PROVIDED A SPILL TRAJECTORY AND EPA PROVIDED PERSONNEL SUPPORT BEFORE 8:00 AM. THE NOAA

SCIENTIFIC SUPPORT COORDINATOR WAS ON-SCENE AT APPROXIMATELY 1:00 PM. COAST GUARD STRIKE TEAM PERSONNEL FROM MOBILE, ALABAMA ARRIVED IN PHILADELPHIA AT 1:15 PM.

FOUR CARGO TANKS WERE DAMAGED AND APPROXIMATELY 300,000 OF THE 18 MILLION GALLONS OF NUMBER 6 OIL ABOARD THE VESSEL HAD BEEN RELEASED INTO THE DELAWARE RIVER. NUMBER 6 OIL IS VERY HEAVY AND THUS, MOST OF IT SANK BELOW THE SURFACE. THIS SEVERELY HAMPERED EARLY RECOVERY EFFORTS. THE COAST GUARD CLOSED THE RIVER TO VESSEL TRAFFIC IN THE VICINITY OF THE SPILL TO FACILITATE CLEANUP. RESPONSE ACTIONS INCLUDED ACTIVATING THE REGIONAL RESPONSE TEAM; BOOMING OFF SENSITIVE AREAS; PARTIALLY OFF-LOADING THE VESSEL TO BARGES, AND MOVING IT TO THE SUNOIL DOCK IN MARCUS HOOK, PENNSYLVANIA; CONTAINING AND RECOVERING FLOATING OIL; AND CLEANING THE SHORELINE IMPACTED BY THE OIL. THE FREE FLOATING OIL WAS RECOVERED USING SKIMMING VESSELS; A FISHING VESSEL WITH SMALL MESH NETS; OPEN OCEAN CONTAINMENT BOOM; SMALL BOATS AND HAND TOOLS; AND ABSORBENT MATERIAL. SHORELINE WAS CLEANED USING HAND TOOLS AND ABSORBENT MATERIAL. NINE CONTRACTORS, MORE THAN 800 PERSONNEL, OVER 60 BOATS, AND 12,000 FEET OF CONTAINMENT BOOM HAVE BEEN USED SO FAR IN THE CLEANUP. CLEANUP IS MORE THAN 75 PERCENT COMPLETE. ALL THAT REMAINS IS CLEANUP OF THE 21 MILES OF IMPACTED SHORELINE.

IN ALL CASES WHERE A SPILL OCCURS, THE COAST GUARD CAPTAIN OF THE PORT INVESTIGATES THE CAUSES OF THE SPILL. IN THESE THREE RECENT SPILLS, OUR NORMAL INVESTIGATIVE PROCESS IS BEING FOLLOWED AND AFTER ACTION REPORTS PREPARED. ONCE FINISHED, THE REPORTS ARE REVIEWED BY THE PROGRAM MANAGER AT COAST GUARD HEADQUARTERS,

AND NECESSARY CORRECTIVE ACTIONS WHERE NECESSARY ARE TAKEN. ALL THREE SPILL INVESTIGATIONS ARE IN VARIOUS STAGES OF COMPLETION, BUT SHOULD BE FINALIZED SHORTLY. SEPARATELY, THESE THREE CASUALTIES WILL BE INVESTIGATED UNDER THE AUTHORITY OF THE LOCAL COAST GUARD OFFICER IN CHARGE, MARINE INSPECTION. THIS LATTER INVESTIGATION IS CONCERNED WITH THE CAUSE OF THE CASUALTY AS AN ISSUE INDEPENDENT OF THE POLLUTION INCIDENT.

THE ENVIRONMENTAL DAMAGE RESULTING FROM THESE THREE SPILLS HAS NOT BEEN FULLY ASSESSED. ENVIRONMENTAL DAMAGE ASSESSMENT IS THE RESPONSIBILITY OF THE NATURAL RESOURCES TRUSTEES WHICH, IN THESE CASES, INCLUDES THE DEPARTMENT OF THE INTERIOR, THE DEPARTMENT OF COMMERCE, AND THE AFFECTED STATES.

IN CLOSING, MR. CHAIRMAN, I WANT TO RECOGNIZE TODAY THE IMPORTANT ROLE THAT NOAA'S SCIENTIFIC SUPPORT COORDINATORS PLAY IN OUR RESPONSE ORGANIZATION. THE SCIENTIFIC SUPPORT COORDINATOR IS AN INDIVIDUAL FROM NOAA ASSIGNED TO PROVIDE THE ON-SCENE COORDINATOR WITH VITAL OPERATIONAL AND SCIENTIFIC ADVICE DURING A RESPONSE EVOLUTION. THIS PERSON IS GENERALLY SUPPORTED BY A TEAM OF HIGHLY CAPABLE NOAA PEOPLE FROM SEVERAL SCIENTIFIC DISCIPLINES AND HAS THE CAPABILITY TO DRAW ON, AND COORDINATE, THE KNOWLEDGE AVAILABLE FROM A WIDE RANGE OF INVOLVED AGENCIES, PRIVATE SOURCES, AND ACADEMIA. THE SCIENTIFIC SUPPORT COORDINATOR SYNTHESIZES INFORMATION AND CONVEYS IT IN USEFUL FORM TO THE ON-SCENE COORDINATOR DURING A CLEAN UP. IT IS THE CLOSE RELATIONSHIP BETWEEN THE SCIENTIFIC SUPPORT COORDINATOR AND THE ON-SCENE COORDINATOR THAT I WANT TO RECOGNIZE AND ACKNOWLEDGE TODAY. THE THREE SPILLS WE ARE DISCUSSING ARE THE MOST RECENT EVIDENCE OF A RELATIONSHIP WE FIND REWARDING.

MR. CHAIRMAN, THIS CONCLUDES MY STATEMENT ON THE COAST GUARD'S RESPONSE TO THESE RECENT SPILLS. I WILL BE GLAD TO ANSWER ANY QUESTIONS THAT YOU OR THE OTHER MEMBERS OF THE COMMITTEE MAY HAVE.

State of Rhode Island and Providence Plantations
EXECUTIVE CHAMBER, PROVIDENCE

Edward D. DiPrete
Governor

THE HONORABLE EDWARD D. DIPRETE

GOVERNOR OF THE STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

TESTIMONY ON OIL SPILLS

SPONSORED BY THE COMMITTEE ON ENVIRONMENTAL AND PUBLIC WORKS

SUBCOMMITTEE ON ENVIRONMENTAL PROTECTION

THURSDAY, JULY 13, 1989

THE HONORABLE EDWARD D. DIPRETE

GOVERNOR OF THE STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

TESTIMONY ON OIL SPILLS

SPONSORED BY THE COMMITTEE ON ENVIRONMENTAL AND PUBLIC WORKS

SUBCOMMITTEE ON ENVIRONMENTAL PROTECTION

THURSDAY, JULY 13, 1989

THANK YOU, MR. CHAIRMAN. AS GOVERNOR OF THE STATE OF RHODE ISLAND, I AM VERY HONORED TO HAVE THIS OPPORTUNITY TO TESTIFY BEFORE THE SENATE SUBCOMMITTEE ON ENVIRONMENTAL PROTECTION.

AS GOVERNOR OF A STATE THAT HAS OVER 400 MILES OF SHORELINE, IT IS IMPORTANT TO HAVE A COMPREHENSIVE PLAN TO CUSHION THE ENVIRONMENTAL AND ECONOMIC IMPACT OF OIL SPILLS. IT IS ESSENTIAL TO HAVE NATIONAL AND STATE LEGISLATION TO PROTECT OUR PRECIOUS NATURAL RESOURCES. MY TESTIMONY TODAY WILL RELATE TO THE ISSUES RELATING TO THE JUNE 23RD "WORLD PRODIGY" OIL SPILL IN NARRAGANSETT BAY.

I THE FACTORS THAT CONTRIBUTED TO THE SPILL.

I BELIEVE THE FOLLOWING FACTORS CONTRIBUTED TO THE "WORLD PRODIGY" OIL SPILL ON JUNE 23, 1989:

1. THE VESSEL HAD ARRIVED EARLY AT THE PILOT STATION, AN AREA SOUTHEAST OF THE BRENTON REEF LIGHT TOWER, AND IT FAILED TO WAIT FOR THE PILOT AT THIS RENDEZVOUS POINT.
2. THE VESSEL WAS OFF COURSE AND WANDERED OUT OF THE WELL-MARKED CHANNEL AND IN FACT, WHEN QUESTIONED BY ME, THE CAPTAIN WAS NOT ABLE TO ACCOUNT FOR HIS IMPROPER ACTION. HE ADMITTED HE HAD MADE A MISTAKE.
3. THE CAPTAIN WAS NOT FAMILIAR WITH RHODE ISLAND WATERS AND WAS NOT USING THE PROPER CHARTS FOR NARRAGANSETT BAY.

II THE NATURE, PROMPTNESS AND EFFICIENCY OF THE RESPONSE.

THE "WORLD PRODIGY" STRUCK A SUBMERGED REEF OFF BRENTON POINT AT APPROXIMATELY 4:10 P.M. ON JUNE 23, 1989. WITHIN 11 MINUTES OF RECEIVING THE NEWS OF THE SPILL, THE COAST GUARD DISPATCHED VESSELS AND QUICKLY CIRCLED THE FREIGHTER WITH CONTAINMENT BOOMS. TWENTY MINUTES LATER, I WAS NOTIFIED ABOUT THE ACCIDENT BY ROBERT BENDICK, DIRECTOR OF THE DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (DEM). BY 5:00 P.M., THE DEM SPILL RESPONSE TEAM HAD BEEN CONTACTED AND WERE RESPONDING TO THE ACCIDENT. BY 5:30 P.M., WE BEGAN CONTACTING AREA CLEANUP CONTRACTORS AND PLACING EQUIPMENT ON STANDBY. A COMMAND CENTER WAS ESTABLISHED IN PROVIDENCE, AND THE PREVIOUSLY DEVELOPED AND UPDATED UNITED STATES COAST GUARD - DEM OIL AND HAZARDOUS SUBSTANCE POLLUTION CONTINGENCY PLAN WAS PUT INTO ACTION. WE IMMEDIATELY ALERTED THE STATE'S EMERGENCY RESPONSE CONTRACTOR AND INSTRUCTED THE COMPANY TO DEPLOY BOOMS AND ABSORBENTS IN SENSITIVE AREAS ALONG THE BAY TO PROTECT KEY ENVIRONMENTAL RESOURCES. SINCE THE DIRECTION OF THE SPILLS MOVEMENT WAS THOUGHT TO BE MOVING EAST, WE HAD AN ADDITIONAL TEAM DISPATCHED TO THE LITTLE COMPTON AREA.

DEM PERSONNEL WERE STATIONED ON THE VESSEL AND REMAINED THERE FOR THE REMAINDER OF THE CLEANUP OPERATION.

PRIOR TO THE STATE BEING INFORMED BY GOVERNMENT OFFICIALS THAT THE PROJECT HAD BEEN FEDERALIZED, WE TOOK THE LEAD AND STARTED THE CRITICAL WORK OF STABILIZING THE VESSEL, AND ESTABLISHED A CLEANUP EQUIPMENT CENTER AT FORT ADAMS.

BY MIDNIGHT OF THE 23RD, WE WERE FORTUNATE TO HAVE EPA ADMINISTRATOR WILLIAM REILLY AND SECRETARY OF INTERIOR MANUEL LUJAN, JR., HERE IN RHODE ISLAND TO PERSONALLY ASSESS THE SITUATION. THEY INFORMED ME THAT THE OIL SPILL RESPONSE WAS FEDERALIZED AND PROMISED ANY AND ALL ASSISTANCE REQUIRED. AT 2:00 A.M. ON JULY 24TH, STATE OFFICIALS MET WITH AND AGREED UPON THE FOLLOWING ACTION PLAN:

1. THE COAST GUARD WOULD BE RESPONSIBLE FOR THE STABILIZATION OF THE VESSEL AND ALL OTHER VESSEL RELATED ACTIONS INCLUDING THE UNLOADING OF THE REMAINING OIL.
2. THE STATE'S DEM WOULD ASSUME THE RESPONSIBILITY OF THE SENSITIVE SHORELINE AREAS AND THEIR CLEANUP. THE STATE AND THE COAST GUARD WOULD WORK TOGETHER TO COORDINATE AND OVERSEE THE ENTIRE SHORELINE CLEANUP.
3. I IMMEDIATELY MOBILIZED THE NATIONAL GUARD. THIS PROVED TO BE OF CRITICAL ASSISTANCE IN OUR CLEANUP RESPONSE.

IN GENERAL, THE PROMPTNESS AND EFFICIENCY OF THE RESPONSE WAS EXCELLENT. EQUIPMENT WAS AVAILABLE AND DISPATCHED WITHIN AN HOUR. THE DECISION TO FEDERALIZE THE PROJECT AND BRING IN THE ATLANTIC STRIKE FORCE (WHO PERFORMED ADMIRABLY) HELPED TREMENDOUSLY TO SECURE THE VESSEL AND PREVENT ADDITIONAL SPILLAGE OF OIL. COOPERATION OF THE RI ARMY AIR NATIONAL GUARD WAS EXCELLENT. HELICOPTER WORK BY STATE AND NATIONAL GUARD HELICOPTERS PROVED CRITICAL FOR COORDINATION EFFORTS. VOLUNTEERS RECRUITED BY SAVE THE BAY PROVIDED KEY ASSISTANCE.

III THE STATUS OT THE CLEANUP.

AS OF JULY 7TH, THE CLEANUP WAS 90% COMPLETED. THERE REMAINS MODERATE BEACH CONTAMINATION AT MACKEREL COVE AND HULL COVE, JAMESTOWN. THERE HAVE BEEN SOME PERIODIC REPORTS OF SHEENING AT BONNET SHORES AND NARRAGANSETT. THE STATE'S COORDINATION AND EFFORTS TO REMEDIATE THESE AREAS CONTINUES ON A DAILY BASIS.

IV AN ASSESSMENT OF THE ENVIRONMENTAL EFFECTS AND NATURAL RESOURCE DAMAGES.

THE OIL SPILL POSED A THREAT TO THE VALUABLE MARINE ECOSYSTEM OF NARRAGANSETT BAY. A FULL ASSESSMENT OF THE ENVIRONMENTAL IMPACT HAS NOT YET BEEN COMPLETED. AREAS OF CONCERN INCLUDE THE AFFECTS ON POPULATIONS OF LOBSTER, CRABS, OTHER SHELLFISH INCLUDING MUSSELS AND CLAMS AND JUVENILE FINFISH. DURING THE SPILL CLEANUP, A NUMBER OF ORGANISMS WERE FOUND TO BE DEAD INCLUDING CRABS, YOUNG LOBSTERS AND MUSSELS. IN ADDITION, IN CERTAIN LOCATIONS, SEVERAL SHORE BIRDS WERE FOUND COATED WITH OIL. THE SPILL CLEARLY DISRUPTED RHODE ISLAND FISHING INDUSTRY FOR A LEAST A WEEK AS SHELLFISHING FOR QUAHOGS WAS CLOSED THROUGHOUT THE NARRAGANSETT BAY. BATHING AREAS IN OUR STATE WERE ALSO CLOSED.

A NUMBER OF STUDIES AND SURVEYS HAVE BEEN INITIATED TO ASSESS MORE ACCURATELY THE EFFECTS THE OIL SPILL HAD ON AREA MARINE AND COASTAL LIFE. WHILE THE RESULTS ARE NOT YET IN, THERE APPEARS TO BE GENERAL SCIENTIFIC CONSENSUS EMERGING THAT THE LONG-TERM DAMAGE CAUSED BY THE SPILL WILL BE MINIMAL DUE IN PART TO RAPID DISSIPATION OF THE OIL AND OUR TIMELY CLEANUP RESPONSE. A POSSIBLE EXCEPTION UNDER STUDY IS THE LIMITED AREA WHERE OIL HAS CONTAMINATED SEDIMENTS AND MAY, THEREFORE, PRESENT A LONGER TERM THREAT TO MARINE MICROORGANISMS.

V RECOMMENDATIONS TO PREVENT FUTURE OIL SPILLS AND TO IMPROVE CONTAINMENT AND REMOVAL OF SPILLED OIL.

IN ORDER TO PREVENT FUTURE OIL SPILLS AND TO IMPROVE CONTAINMENT AND REMOVAL OF SPILLED OILS, I HAVE ASKED THE STATE'S CONGRESSIONAL DELEGATION AND STRONGLY URGE THIS COMMITTEE TO AMEND THE DISASTER RELIEF ACT OF 1974 TO MAKE OIL SPILLS A MAJOR DISASTER THUS QUALIFYING STATES FOR FEDERAL DISASTER ASSISTANCE PROGRAMS. I WOULD

ALSO RECOMMEND THAT NEW LEGISLATION BE INTRODUCED TO STRENGTHEN QUALIFICATIONS FOR OIL TANKER CAPTAINS NAVIGATING ALONG COASTAL WATERWAYS AND REQUIRE THAT THEY BE LICENSED.

I ASKED THE RHODE ISLAND SMALL BUSINESS LOAN FUND TO GIVE PRIORITY TO APPLICATIONS FROM THOSE EFFECTED BY THE OIL SPILL, INCLUDING THE FISHING AND TOURISM INDUSTRIES.

I HAVE ALSO DIRECTED MY LEGAL COUNSEL AND POLICY STAFF TO DEVELOP EMERGENCY LEGISLATION WHICH WOULD STIFFEN THE FINES FOR WATER POLLUTION VIOLATIONS AND ADD A PUNITIVE OVERLAY FOR DAMAGES.

I HAVE RECOMMENDED USING THE STATE EMERGENCY RESPONSE FUND FOR RECORDING AN ANALYSIS AND PRODUCING REMEDIAL AND INVESTIGATORY REPORTS. IN ADDITION, IT COULD BE USED FOR SPILL RESPONSE, ANALYSIS, CONTAINMENT AND CLEANUP, AND TEMPORARY RESIDENT RELOCATION DURING EMERGENCY RESPONSE ACTIVITIES.

I HAVE CALLED FOR TIGHTER STATE WATER POLLUTION LAWS WHICH WOULD INCREASE CIVIL PENALTIES TO TWICE THE CLEANUP COST IN ORDER THAT MONEY NOT APPLIED TO THE CLEANUP COULD CREATE A SPECIAL FUND DEDICATED TO RESEARCH AND RELIEF.

I INTEND TO ASKED U.S. SECRETARY OF TRANSPORTATION SKINNER TO DIRECT THE COAST GUARD TO RECONSIDER THE STATUS OF BRENTON LIGHT TOWER, TO SEEK ENFORCEMENT OF EXISTING FEDERAL REGULATIONS TO ROUTE SEA-GOING THROUGH TRAFFIC SOUTH OF BLOCK ISLAND, AND TO INVESTIGATE ALTERING FEDERAL SEA LANE ACCESS TO NARRAGANSETT BAY FURTHER AWAY FROM BRENTON REEF.

IN ADDITION, I WILL SEEK A FEDERAL SMALL ADMINISTRATION DECLARATION TO PROVIDE ASSISTANCE TO EFFECTED SMALL BUSINESS OWNERS BY WRITING A CERTIFICATE OF ECONOMIC INQUIRY, STATING THE SMALL BUSINESSES SUBSTANTIALLY HARMED BY THE SPILL BE COMPENSATED.

I HAVE ASKED THE NATIONAL GOVERNORS ASSOCIATION TO CONVENE A MEETING OF GOVERNORS OF THOSE STATES AFFECTED BY RECENT OIL SPILLS AND OF COASTAL STATES WITH THE POTENTIAL FOR OIL SPILL DISASTERS.

IN CONCLUSION, I STRONGLY URGE THE COMMITTEE TO RECOMMEND REENACTMENT AND FULL FUNDING FOR OIL SPILL PROGRAMS THAT WOULD HELP PREVENT SPILLS AND FOR RESEARCH TO DEVELOP TECHNOLOGY TO RESPOND SUCCESSFULLY TO OIL SPILLS. WE SHOULD EXAMINE THE MERITS OF BUILDING SHIPS WITH DOUBLE HULLS AND ELECTRONIC SENSOR DEVICES FOR OIL TANKERS SIMILAR TO ONES USED IN SUBMARINES.

WE IN RHODE ISLAND WERE FORTUNATE SINCE THE OIL WAS NOT CRUDE BUT HIGHLY REFINED HEATING OIL WHICH EVAPORATED QUICKLY, OUR WEATHER WAS PERFECT, THE VESSEL WAS STABILIZED AND MOST IMPORTANT, OUR RESPONSE WAS QUICKLY, COMPREHENSIVE AND WELL-ORGANIZED. THE COAST GUARD AND OUR CONGRESSIONAL DELEGATION ARE TO BE COMMENDED FOR THEIR EFFORTS ON BEHALF OF THE STATE OF RHODE ISLAND.

STATEMENT OF

GERARD BURKE, ACTING DEPUTY COMMISSIONER

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

BEFORE THE

SENATE ENVIRONMENT AND PUBLIC WORKS COMMITTEE

SUBCOMMITTEE ON ENVIRONMENTAL PROTECTION

ON

OIL SPILL EMERGENCY RESPONSE

WASHINGTON, D.C.

JULY 13, 1989

Good morning Mr. Chairman, members of the subcommittee. I am Gerard Burke, Acting Deputy Commissioner of the New Jersey Department of Environmental Protection. I am appearing on behalf of Christopher Daggett, Commissioner of the New Jersey Department of Environmental Protection. I have with me Stan Delikat, Chief of the DEP's Bureau of Emergency Response. Thank you for this opportunity to address the important issue of oil spill emergency response.

A few months ago, the Valdez Oil Spill and its environmentally disastrous consequences caused us to review our contingency plans for a similar emergency in New Jersey waters. Fortunately, not many supertankers of the Valdez capacity ply our waters, but, because of New Jersey's population density and our relatively narrow waterways, a much smaller spill has the equivalent potential for economic and ecological disaster. The 300,000 gallon spill last month by the "Presidente Rivera" is the latest in a series of major spills on the Delaware River which form the basis for my testimony today. In September 1985, "The Grand Eagle" spilled more than 400,000 gallons of crude oil; in March 1986, "The Intermar Alliance" spilled 200,000 gallons of crude oil; in September 1986, "The Viking Osprey" spilled 250,000 gallons of crude oil; and last January 1989, a Texaco barge caused a 100,000 gallon spill of diesel oil and toluene. This totals five major petroleum spills along the Delaware since September 1985.

1.

Before I make specific recommendations as to how we might better respond to major oil spills, I wish to address the broader issue of the areas of New Jersey threatened by, and the responsibilities for, handling such incidents. As you are aware, the Coast Guard has the primary responsibility for handling oil spills in the waters surrounding New Jersey. From Toms River north, the Captain of the Port of New York Coast Guard Group is responsible. The remainder of New Jersey's coast, including Delaware Bay and the Delaware River all the way upriver to Trenton, is the responsibility of the Coast Guard Group Philadelphia. Thus, the responsibility to protect the major portion of New Jersey's shore line belongs to Captain of the Port of Philadelphia (See Figure 1). This is also the principal area threatened in New Jersey since over 70% of all oil entering the Eastern United States does so through Delaware Bay.

Coordination of oil spill responses in the Delaware River and Bay is unique in that the federal on-site coordinator, the Captain of the Port of Philadelphia, has organized a very active Multi Agency Local Response Team as his primary advisory body. This team serves up to and through the point of activation of the Regional Response Team, the typical coordinating body for most ports. Essentially, the same federal, state and local municipal

agencies are represented on both teams, but the Multi Agency Local Response Team has the advantage of industry's direct participation. In the recent "Presidente Rivera" spill, the Multi Agency Local Response Team was the coordinating authority.

While the Coast Guard has responsibility for spills in waters surrounding New Jersey, for spills on land, and spills on the major inland navigable streams, the responsibility for regional planning and oil spill response under the Superfund Amendments and Reauthorization Act rests with EPA Region II for New Jersey and New York, and with EPA Region III for Pennsylvania and Delaware.

In addition to the Coast Guard and the EPA, two other regional oil spill planning cooperatives are noteworthy. While not publicly supported, the Clean Harbor Cooperative, a consortium of member companies, stands ready to reduce the impact of a spill by any member around the New York harbor area. Similarly, the Delaware Bay and River Cooperative has the same mission in the Delaware River.

The State of New Jersey itself, through the New Jersey State Police, Office of Emergency Management, is tasked with planning and coordinating all the state resources needed to

mitigate a State of Emergency when declared by the Governor. Within my own Department, there are considerable resources available for initial response, damage assessment, mitigation and supervision of clean up efforts. Within the Department, the Bureau of Emergency Response is tasked with overseeing all emergency clean up actions. This fourteen person elite unit can call upon additional resources as needed through the Department's Emergency Response Coordinator. The Emergency Response Coordinator ensures currency of a detailed contingency plan which not only establishes priorities for response activities, but also provides a methodology for integrating the varied capabilities of the Department's multiple divisions in the event of a significant emergency. Such resources, though adequate for most emergencies, have their limitations when addressing major releases.

In addition, under the State's Spill Compensation and Control Act the Department has at it's disposal a fund which is available for response purposes. This fund may be utilized within established contracts with three of the State's largest clean up firms in the event the responsible party is unknown, unwilling or unable to initiate appropriate response actions. Such resources are of a finite nature, however, and do not lend themselves well to major incidents.

The salient message is that for small and moderate spills, New Jersey has a reasonable capacity to respond and protect its own shoreline in the event the federal response is inadequate, but for major spills of 100,000 gallons and more, rapid federal response is an absolute necessity to reduce the economic and environmental impacts of petroleum spills. That response in past Delaware River spills has been uneven. The mechanisms to put into place the resources and nature of expertise needed to deal with major spills are too slow. The Coast Guard apparently prefers allowing the Responsible Party to take charge of the clean up, rather than "federalize" the clean up of oil spills on the Delaware. The "federalized" spill off Newport, Rhode Island was an exception to this rule, and the quality of that response appeared markedly superior. I hasten to add that in each Delaware River spill, the responsible party rapidly declared a willingness to pay for clean up. Nevertheless, a fast initial federal response, later turned over to the responsible party to continue, could limit the impact of oil spills more effectively.

Fortunately, the State of New Jersey was spared significant short term economic and ecological damage in the recent spill of No. 6 oil. Tidal and wind conditions kept the oil off New Jersey river banks during the four days immediately following the spill. When the oil did arrive, significant effort, exceeding 120 contractor personnel and

35 state personnel, reduced its impact. Clean up data indicates that less than 10% of the 300,000 gallons originally spilled, actually impacted New Jersey. Most of the shoreline has been cleaned, but marshes seem to be resisting most clean up efforts. It will be slow work. Actual costs to the Department are about one quarter of a million dollars, which we expect to recover from the responsible party. The actual long term impacts on the marshes, birds and water life are more difficult to predict.

I have several practical recommendations pertaining to that faster initial federal response which I hope you will seriously consider.

First, communication with the clean up workforce on a major spill is essential but virtually nonexistent. Contractors hired to do clean up do not have mobile communication equipment capable of centrally controlling the hundreds of workers deployed over the miles of shoreline to be cleaned. Changes in priority can not be communicated. No federal on-site coordinator (OSC) has a communication package which he can overlay on the contractor workforce. One is sorely needed.

It is recommended that Congress task the National Response Team to design and acquire deployable priority

communication packages capable of directing several hundred workers at major disasters. Further, that funds be made available for each Regional Response Team to acquire some of this deployable communication package for local training and first use capability.

Second, a successful response can occur only when full knowledge of the nature of the emergency is well at hand. The "Presidente Rivera" spilled more than 300,000 gallons of #6 oil in the Delaware River. Initial clean up efforts by the Coast Guard were hampered by uncertainties about the characteristics of #6 oil in a tidal river environment. These uncertainties delayed selection of an effective oil recovery strategy. Any delay in the initial stages of clean up compound the work needed to fully clean up spills and increase the probability of long-term environmental damage.

It is recommended that Congress establish a Spill Technology Clearinghouse as an element of the Coast Guard. This Clearinghouse would be available to the Coast Guard, and others, on a 24-hour basis and would contain the latest factual and scientific information about the behavior of oil and other chemical substances in water environments, as well as recommendations on appropriate clean up options. The Clearinghouse should also be charged with maintaining a nationwide inventory of major spill response equipment and

of nationally recognized experts for rapid deployment in the event of a spill on a 24-hour basis.

Similar networks already exist for on-land chemical spills. For example, Chemtrec can be called by firemen and emergency responders on a 24-hour basis for chemical characteristics and other relevant response information. A similar network for waterborn spills is needed.

Third, knowledge of the magnitude of the emergency must also be well at hand. The size of an oil spill is a very significant element of information because it directly establishes priorities for resource allocation. It also affects the public's perception of how much local, state and federal effort should be expended. Our past experience and recent examples have been that estimates of the size of a spill can vary erratically for several days - usually settling down only after independent assessments are made by private companies which specialize in cargo surveying.

It is recommended that Congress require that the National Oil Spill Contingency Plan list pre-approved private contractors capable of boarding an oil-spilling vessel and providing a credible loss assessment.

Fourth, we must ensure that the necessary infrastructure is in place for a successful booming operation. One of the first actions to limit damage to environmentally sensitive areas and to secure potable water intakes is the setting of protective booms. Routinely, these booms break, often because they cannot be adequately anchored. Along most major waterways, the locations at which such booms should be placed are known but there is no funding to build permanent anchors.

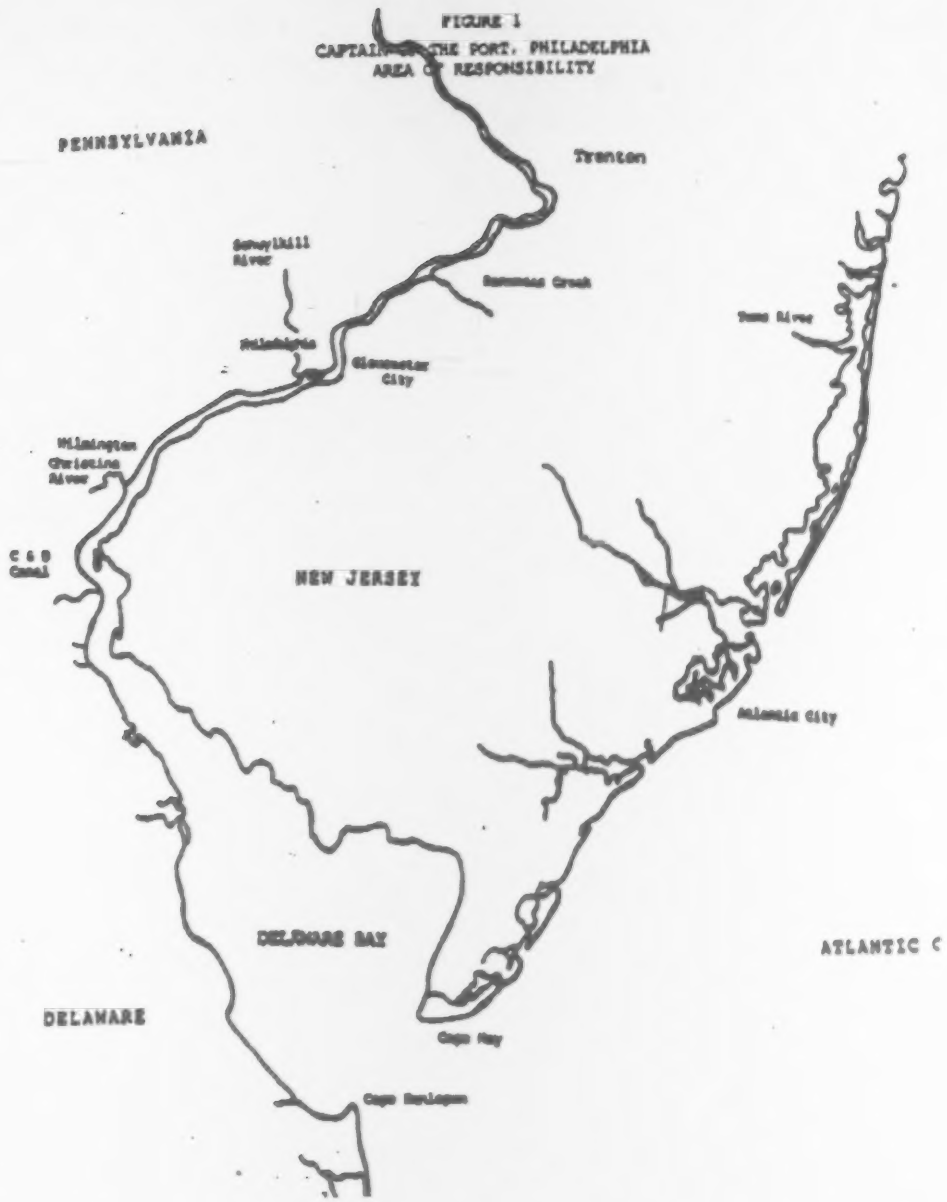
It is recommended that Congress require that the Army Corps of Engineers construct permanent anchors in areas declared environmentally sensitive which are subject to episodic oil spills. Regional Response Teams should be tasked with coordinating the selection effort with appropriate Coast Guard and Army Engineer districts.

Last, but by no means least, we have again been taught that there is no such thing as being too prepared. We strongly recommend that the Coast Guard be funded and directed to conduct additional drills to test preparedness of all response elements. We recognize the significant

potential for oil spills in our waters. While our response posture can and does mitigate the small spills effectively, it is obvious that we need more effective federal help for the major ones.

I would be happy to answer any questions.

FIGURE 1
CAPTAIN OF THE PORT, PHILADELPHIA
AREA OF RESPONSIBILITY



PREVIOUS MAJOR OIL SPILLS IMPACTING NEW JERSEY

The Grand Eagle

At 0115 hours on September 29, 1985, "The Grand Eagle" carrying 530,000 barrels (20 million plus gallons) of crude oil grounded in the Delaware River near Pedricktown. The spill of over 400,000 gallons of Ninian crude contaminated the river from Chester Island to just below the Delaware Memorial Bridge. The Coast Guard (COTP Philadelphia) took the lead, activated the RRT and the MALRT. Other key agencies called upon were PA DER, DE DNR, US Fish & Wildlife, NOAA, NJSP and EPA Regions 2 and 3. Delaware Bay Coop activated their Skimmer and three private clean up contractors were hired; Underwater Tech, South Jersey Pollution and Mid-Atlantic Ref. Service. The clean up was completed in over 6-8 months, but the case was not closed out until September 1986 due to lengthy environmental studies.

The Intemar Alliance

At 1000 hours on March 21, 1986, "The Intermar Alliance "carrying 80,000 barrels (3,360,000 gallons) of crude oil struck the dock of the British Petroleum Facility at Marcus Hook Pa. The spill of 200,000 gallons contaminated the shore south from Oldmans Point to Helms Cove. Sun Oil accepted responsibility, activated the DBRC and hired two contractors; Underwater Technical and Snow Environmental. USCG assumed an oversight role, activated MALRT & RRT, DEP responded as did EPA Regions 2 & 3, PA DER, DE DNR, NJSP, US Fish & Wildlife Service, NOAA and Tri-State Bird Rescue. Although the river clean-up was smooth, the quality of the cleaning of some beach areas forced extensive litigation and took until September 1988 to complete.

The Viking Osprey

At 1400 hours on September 10, 1986 the Coast Guard discovered a large oil sheen in the vicinity of the Commodore Barry Bridge. The source was identified as "The Viking Osprey", which was in the process of docking at Mobil Oil, and had a 800 bbl/hr below the water line leak. More than 250,000 gallons of light Mexican crude oil came ashore at points from Paulsboro to Eagle Point, NJ. The vessel's owners assumed responsibility, Mobil Oil hired Mid-Atlantic

as its clean-up contractor and the DBRC was activated. The Coast Guard assumed an oversight role, the RRT and the MALRT were activated and the NRT's
Atlantic Strike Team was placed on alert. NJ DEP personnel monitored

the NJ side operation. Underwater Tech, Guardian and Snow Environmental were also hired. Approximately 190,000 gallons were recovered.

Texaco Barge

On January 25, 1989, a Texaco barge maneuvered by the tug "Texaco Tampa" rammed the marine terminal dock at Wilington Delaware, rupturing: 1-10 diesel line"; 1-12" #2 oil line; 1-12" Toluene line and creating a reported discharge of 100,000 gallons of product into the Christina River and Delaware River. Guardian Contractors were hired by Wilmington Terminal. U.S.C.G. monitored the spill and DBRC assisted by mobilizing two mechanized skimmers. End result was that all product was contained on the Delaware side of the river.

Standard Oil of Ohio

At 0500 hours on August 4, 1986 a leak was detected in a 16 inch underground oil product transfer pipeline. The owners of the pipeline, SOHIO, assumed responsibility for the over 200,000 gallons of #2 fuel oil that spilled. The oil flowed into a culvert, through a 20 inch diameter discharge pipe and into the Lawrence Brook, a potable water source. SOHIO hired South Jersey Pollution Control Services as the primary clean-up contractor. In addition, SJPC hired Mid-Atlantic Refinery and Clean Venture as subcontractors. On August 5, at the request of NJ DEP, the EPA agreed to take the role as the lead agency coordinating clean-up activities. Daily surveys of clean-up operations were made by the NJ DEP and Middlesex County Health Department to assist EPA's efforts. By 2230 hours on August 6, an estimated 150,000 gallons of material had been collected from Lawrence Brook and culverts near the source.

STATEMENT OF RONALD LAMBERTSON, REGIONAL DIRECTOR, UNITED STATES FISH AND WILDLIFE SERVICE, DEPARTMENT OF THE INTERIOR, BEFORE THE SUBCOMMITTEE ON ENVIRONMENTAL PROTECTION OF THE SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS, REGARDING OIL SPILL RESPONSES

July 13, 1989

I am Ronald Lambertson, the U.S. Fish and Wildlife Service Regional Director for the Northeast Region. I am pleased to discuss the Service's oil spill preparedness and responses by our Northeast Region on the recent oil spills in Rhode Island and Delaware. The Service and the Department of the Interior are very concerned for our trustee natural resources when oil is spilled. As you may already be aware, Secretary Lujan visited the scene of the Rhode Island and Delaware spills within hours of each incident.

Background on Service Oil Spill Operations

Oil spill response -- cleanup -- is governed by the National Oil and Hazardous Substances Contingency Plan (NCP), and the Regional Contingency Plans. According to the location of the spill, the Fish and Wildlife Service may be notified by the Department's Regional Environmental Officer or directly by the Coast Guard.

The Department of Interior has two operational roles during a spill incident: response (cleanup), and then the natural resource damage assessment, if appropriate. The object during the response is to prevent or mitigate impact on Interior resources and landholdings, and to provide technical expertise and logistical support to the On-Scene Coordinator. As soon as the response (cleanup) is well under way, the Fish and Wildlife Service, along with any other affected natural resource trustee offices within the Department, and the Department's Regional Environmental Officers, work with the other Federal and State trustees to consider natural resource damage assessment possibilities.

In 1977 the Fish and Wildlife Service assigned oil spill coordinators in each of its seven regions and a national spill coordinator in Washington. These coordinators prepared National and regional spill response plans to guide future Fish and Wildlife Service operations. Field response coordinators were pre-assigned to cover specific geographical areas Nationwide, and National and regional oil spill workshops were conducted to train Service employees.

Duties related to the management of spill response are assigned to our Regional Environmental Contaminants Division. Field level response coordinators handle the actual on-the-ground work. These individuals come from a number of Service operational activities, including refuge managers, Environmental Contaminant specialists, and fishery biologists. Although no specific oil spill funding has been identified in annual budgets for training or response, a level of readiness has been maintained and a roster of spill response people is kept current. Training now is mostly

on-the-job, during spills, or through EPA or Coast Guard sponsored spill simulation exercises. Each Service coordinator is guided by a regional response plan that contains narrative instructions, names, addresses and telephone numbers of pre-assigned responders and check lists of things that must be done.

Oil Spill Responses - Rhode Island and Delaware

The World Prodigy spill in Rhode Island and the Presidente Rivera spill in Delaware were typical of spills to which the Fish and Wildlife Service responds. The World Prodigy oil tanker ran aground at 4:40 p.m. on Friday, June 25, and the Presidente Rivera ran aground 4:45 a.m. Saturday, June 26. Both spills occurred during off-duty hours, when response staff are sometimes difficult to reach. Our field coordinators for Rhode Island and Delaware each contacted State agencies and other Service personnel prior to official notification, when they heard the news by radio, television or through telephone calls to their homes. Because of their timely action in coordinating with the Coast Guard and the States, important habitats were identified early and many were protected from oiling.

Rhode Island Spill

The Field response responsibility for Rhode Island is assigned to the Refuge Manager of the Ninigret National Refuge Complex in Charlestown, Rhode Island. The Refuge Manager had recently transferred out of the Region and his replacement had not yet arrived. The acting manager took charge of the Service response and did an excellent job with the help of the refuge staff, Regional Office assistance and volunteers from two other refuges. The Department of the Interior representative to the Regional Response Team was helpful in providing advice, support and in obtaining equipment from the Coast Guard. Much of the Service's effort in Rhode Island was to identify and protect sensitive areas.

One of the areas where we had major concerns was at Moonstone beach on Trustom Pond National Wildlife Refuge, where four pairs of the piping plover were sitting on eggs or were brooding chicks. The Piping Plover is a federally listed threatened species. Another area of concern was the wetlands at Pettaquamscutt Cove. A Service pilot made overflights to locate birds and oil slicks that were of concern. When oil was within a few hundred yards of the piping plover nests at Trustom Pond National Wildlife Refuge, we worked along with State and EPA personnel late into the night to put out 3000 feet of absorbent boom to keep the oil off the beach. A light sheen did come ashore, but apparently little damage was done.

In comparison to the number of waterfowl and shorebirds that are present during other times of the year, few birds were present in the vicinity of the spill. Three loons were oiled and rehabilitated at the State of Rhode Island's Great Swamp Wildlife Management Area. Four gulls, a loon, and a stormy petrel were

known to have died from the spill; however, body counts may be misleading indicators. Crab and lobster resources reportedly were impacted. Priority resources of concern to the U.S. Fish and Wildlife Service, such as anadromous fish, migratory birds and endangered species, appear to have been spared major damage.

Delaware Oil Spill

On the Delaware River and Bay, a highly prepared interagency group responds frequently to oil spills -- having now responded to four major spills in the last four years. The Fish and Wildlife Service is part of that group, which is headed by the Coast Guard, and responded promptly to the Presidente Rivera spill. The Department of Interior representative on the Regional Response Team ably assisted the Service in its coordination with the Coast Guard by substituting for the Service's member of the local (Captain of the Port) response team while he was in the field.

Service lands along the Delaware include Supawna Meadows National Wildlife Refuge, Bombay Hook National Wildlife Refuge, Tinicum National Environmental Center, and Prime Hook National Wildlife Refuge. The Refuge Manager at Tinicum was our field response coordinator. Service field response people spent much time identifying sensitive areas to be protected and looking for oiled birds. Frequent overflights and boat patrols were useful. 120 oiled, flightless Canada geese, some semi-domestic mallards, and an egret were brought to the bird cleaning center at Tri-State Bird Rescue and Research, Inc., in Wilmington, Delaware. Thus far, nine of these birds have died.

Pea Patch Island contains rookeries of several thousand wading birds. The shoreline of the Island was hit with oil, but the birds seemed to have avoided it. Supawna Meadows National Wildlife Refuge had oil along its shoreline, and in the marsh grasses, but little other observable damage. Oil has also come ashore in Delaware wetlands, where there is an on-going clean up effort. The Service is conducting in situ bioassays with fingerling striped bass and collecting larger striped bass to conduct stomach analysis to evaluate impacts to that species. It is too early at this time to make a final assessment on the damage incurred on the Department of Interior trust resources since the assessment is on-going. However, major acute mortality seems to have been avoided.

Summary

While there has been some loss of fish and wildlife resources, acute damage to Department of the Interior trust resources for which the Fish and Wildlife Service has responsibility seems to have been avoided in these oil spills. The trustees involved with these spills include the Department of Interior, with fish and wildlife responsibilities for the Rhode Island and Delaware spills; the Department of Commerce, which has marine resource responsibilities in each spill; and the States, which have probably the major trustee role in both cases. We have been

providing technical assistance to the other trustee groups in both spills.

We do not at present have any good estimates of the long-term effect of oil on fish and wildlife resources. Oil spill responses require the Service to divert staff and funding from planned projects to support the emergency response effort. If a spill is not declared a Federal spill by the Coast Guard, no up-front funding source is available for emergency response, damage assessment, or natural resource restoration. Enactment of the Administration's comprehensive oil spill liability bill would be extremely helpful in this regard.

Again, Mr. Chairman, I appreciate the opportunity to appear before the subcommittee today, and I will be happy to try to respond to any questions you may have.

Testimony of

EDWIN ROLAND -

PRESIDENT, AMOCO TRANSPORT COMPANY

on Behalf of the

AMERICAN PETROLEUM INSTITUTE

on

Oil Spill Response and Clean-up

Before the

SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION

of the

SENATE ENVIRONMENT AND PUBLIC WORKS COMMITTEE

Washington, D.C.
July 13, 1989

MR. CHAIRMAN, MY NAME IS EDWIN ROLAND, PRESIDENT OF AMOCO TRANSPORT COMPANY, INC., AND CHAIRMAN OF THE AMERICAN PETROLEUM INSTITUTE'S (API) MARINE TRANSPORTATION COMMITTEE. WITH ME TODAY IS SAM GILLESPIE OF MOBIL CORPORATION AND TOGETHER WE ARE REPRESENTING API, A TRADE ASSOCIATION OF 200 COMPANIES INVOLVED IN ALL ASPECTS OF THE OIL AND NATURAL GAS INDUSTRY, INCLUDING EXPLORATION, PRODUCTION, TRANSPORTATION, REFINING AND MARKETING. WE WELCOME THIS OPPORTUNITY TO COMMENT ON OIL SPILL RESPONSE AND CLEAN-UP.

OBVIOUSLY OUR INDUSTRY IS IN THE THROWS OF A DIFFICULT AND CHALLENGING PERIOD. WE ARE MAKING A MAJOR EFFORT WITHIN THE INDUSTRY AND WITH GOVERNMENT AT ALL LEVELS TO MAKE IMPROVEMENTS IN RESPONSE, CONTAINMENT, AND CLEAN-UP OF OIL SPILLS. PROGRESS HAS BEEN MADE, BUT MUCH REMAINS TO BE DONE.

ON APRIL 7, 1989, RICHARD M. MORROW, CHAIRMAN OF AMOCO CORPORATION, AND CHAIRMAN OF THE BOARD OF API, ANNOUNCED THAT THE API BOARD OF DIRECTORS HAD ESTABLISHED A TOP-LEVEL TASK FORCE TO REVIEW INDUSTRY OPERATIONS IN THE AREAS OF OIL SPILL PREVENTION AND RESPONSE. ALLEN E. MURRAY, CHAIRMAN OF MOBIL CORPORATION, WAS NAMED CHAIRMAN OF THE TASK FORCE AND WAS ASKED TO DEVELOP A RECOMMENDED PROGRAM FOR ADDRESSING THE OIL SPILL PROBLEM WITHIN THREE MONTHS. THE TASK FORCE WAS COMPRISED OF THE CHIEF EXECUTIVES OR PRESIDENTS OF THE FOLLOWING COMPANIES: AMOCO

CORPORATION, ARCO, BP AMERICA INC., CHEVRON CORPORATION, EXXON CORPORATION, MOBIL CORPORATION, SHELL OIL COMPANY, AND TEXACO INC.

API'S OIL SPILL TASK FORCE HAS COMPLETED ITS WORK AND ISSUED ITS REPORT AND RECOMMENDED THAT SIGNIFICANT ACTION BE TAKEN BY THE INDUSTRY IN THREE MAJOR AREAS - PREVENTION OF SPILLS, RESPONSE TO SPILLS, AND SPILL-RELATED RESEARCH. THE TASK FORCE'S RECOMMENDATIONS ARE IN MANY WAYS CONSISTENT WITH THE DIRECTION BEING TAKEN BY THE ADMINISTRATION AND CONGRESS ON THIS ISSUE. WE BELIEVE THE TASK FORCE'S RECOMMENDATIONS SHOULD PROVIDE THE BASIS FOR A MEANINGFUL DIALOGUE IN DEVELOPING A COOPERATIVE APPROACH TO THE OIL SPILL ISSUE. A COPY OF THE TASK FORCE'S REPORT IS INCLUDED FOR THE RECORD.

THE TASK FORCE'S RECOMMENDATIONS PRESENTLY ARE BEING IMPLEMENTED AS FOLLOWS. THE PREVENTION PORTION OF THE PROGRAM IS BEING HANDLED BY THE API MARINE TRANSPORTATION COMMITTEE WHICH I CHAIR. THE RESPONSE AND RESEARCH PARTS OF THE PROGRAM WILL BE IMPLEMENTED BY A NEW PETROLEUM INDUSTRY RESPONSE ORGANIZATION (PIRO). PIRO IS AN INDEPENDENT ORGANIZATION, VOLUNTARILY FUNDED BY INDUSTRY, MANAGED BY ITS OWN BOARD OF DIRECTORS AND DESIGNED TO COORDINATE CLOSELY WITH THE COAST GUARD. TO DATE, COMPANIES REPRESENTING ALMOST THREE-QUARTERS OF THE WATERBORNE RECEIPTS OF: (1) FOREIGN CRUDE IMPORTS INTO THE UNITED STATES (EXCLUDING CANADIAN IMPORTS); (2) ALASKAN CRUDE MOVED TO THE CONTINENTAL UNITED STATES; AND, (3) HEAVY FUEL OIL MOVEMENTS, HAVE JOINED

PIRO AND MANY MORE ARE CONSIDERING MEMBERSHIP. ITS INITIAL ORGANIZATIONAL MEETING WILL BE HELD WITHIN THE WEEK.

AN OVERVIEW OF THE RECOMMENDATIONS FOLLOWS:

1. RESPONSE: AN INDUSTRY FUNDED PETROLEUM INDUSTRY RESPONSE ORGANIZATION (PIRO) WILL BE ESTABLISHED TO CONSIST OF A HEADQUARTERS GROUP AND FIVE REGIONAL RESPONSE CENTERS.

WHILE THE DETAILS OF THE PROPOSAL ARE TO BE FURTHER REFINED BY PIRO ITSELF IN CONJUNCTION WITH THE ADVISE AND COOPERATION OF A NUMBER OF GOVERNMENT ENTITIES; THE API OIL SPILL TASK FORCE'S REPORT RECOMMENDS THAT THE HEADQUARTERS BE LOCATED IN WASHINGTON, D.C. TO COORDINATE ITS ACTIVITIES WITH THE FEDERAL GOVERNMENT'S NATIONAL RESPONSE TEAM; THAT PIRO MAINTAIN AN OIL SPILL RELATED DATA BANK AND PARTICIPATE IN OIL SPILL RELATED RESEARCH; AND PROVIDE TRAINING AND AUDITING GUIDANCE TO REGIONAL OFFICES. MOST IMPORTANTLY, THE PIRO HEADQUARTERS STAFF WOULD COORDINATE A PIRO MULTI-REGION RESPONSE.

THE REGIONAL RESPONSE CENTERS WOULD PROVISIONALLY BE LOCATED IN THE NEW YORK TRI-STATE AREA, NORFOLK, NEW ORLEANS, LONG BEACH AND SEATTLE. REGIONAL RESPONSE CENTERS WOULD COORDINATE THEIR ACTIVITIES WITH THE FEDERAL GOVERNMENT'S REGIONAL RESPONSE TEAMS, AUDIT AND PROVIDE TRAINING TO LOCAL COOPERATIVES AND INDUSTRY FACILITIES, AND RESPOND TO SPILLS BEYOND LOCAL CAPABILITY. EACH CENTER WOULD BE MANNED AROUND THE CLOCK WITH DEDICATED, TRAINED

PERSONNEL AND EQUIPPED WITH PROPERLY MAINTAINED CONTAINMENT, MECHANICAL RECOVERY, DISPERSAL, AND SHORELINE CLEAN-UP EQUIPMENT. EACH CENTER WOULD BE SIZED TO HAVE A 30,000 TON SPILL RESPONSE CAPABILITY.

IT IS ESTIMATED THAT THE ANNUAL COST OF THE PIRO STRUCTURE WILL BE $30 MILLION TO $35 MILLION. THIS INCLUDES A TEN-YEAR AMORTIZATION FACTOR FOR UP FRONT CAPITAL COSTS FOR EQUIPPING THE FIVE REGIONAL RESPONSE CENTERS AND THE HEADQUARTERS. THE UP-FRONT CAPITAL COST WOULD BE IN THE RANGE OF $70 MILLION TO $100 MILLION.

THE CAPITAL COST AND ANNUAL OPERATING COSTS WILL BE FUNDED BY INDUSTRY ALONG LINES SIMILAR TO THE CARGO OWNERS' "CONTRACT REGARDING A SUPPLEMENT TO TANKER LIABILITY FOR OIL POLLUTION (CRISTAL)" ARRANGEMENT. THIS WOULD ENTAIL A CHARGE TO INDUSTRY MEMBERS BASED ON CRUDE AND HEAVY FUEL OIL CARRIED BY SEA AND RECEIVED BY INDUSTRY MEMBERS AT U.S. FACILITIES. THERE IS NO PERFECT ALLOCATION SYSTEM BUT THIS ONE IS RELATIVELY SIMPLE IN CONCEPT, HAS WORKED WELL, AND PROVIDES A LOGICAL FIT WITH THE PROBLEM AT HAND.

THE API TASK FORCE ALSO RECOMMENDS THAT THE SECRETARY OF TRANSPORTATION MANAGE MAJOR SPILLS. THE SECRETARY HAS A LEGAL RESPONSIBILITY TO SEE THAT SPILLS ARE PROMPTLY AND ADEQUATELY DEALT WITH AND, THROUGH THE COAST GUARD, MAINTAINS AN ORGANIZATION TO FULFILL THAT RESPONSIBILITY, WITH SUPPORT VESSELS

AND AIRCRAFT READILY AVAILABLE. THROUGH ITS ROLE ON THE NATIONAL RESPONSE TEAM AND ITS INVOLVEMENT IN REGIONAL RESPONSE TEAMS, THE COAST GUARD IS WELL POSITIONED TO PROVIDE A CONSISTENT NATIONWIDE APPROACH TO SPILL MANAGEMENT AND THE SECRETARY IS BETTER POSITIONED THAN INDUSTRY TO RESOLVE THE DIVERSE INTERESTS OF FEDERAL, STATE, AND LOCAL AGENCIES WHICH MUST BE COORDINATED TO ALLOW QUICK AND DECISIVE SPILL MANAGEMENT. THUS THE CONCEPT IS THAT PIRO WOULD PROVIDE EQUIPMENT AND SKILLED, DEDICATED PEOPLE TO RESPOND TO MAJOR SPILLS UNDER THE LEADERSHIP OF THE SECRETARY OF TRANSPORTATION.

2. PREVENTION: API RECOMMENDS SEVERAL CHANGES THAT WILL MAKE TANKER OPERATION MORE POLLUTION RESISTANT. SOME OF THE RECOMMENDED CHANGES ARE NEW INITIATIVES, WHILE OTHERS ARE IMPROVEMENTS OF EXISTING SAFEGUARDS. IN ADDITION, SOME OF THE POSSIBLE IMPROVEMENTS IN POLLUTION PREVENTION ARE NOT CLEAR-CUT AND REQUIRE FURTHER STUDY BY AN INDEPENDENT BODY IN ORDER TO ASSURE THAT CHANGES WILL ACTUALLY IMPROVE TANKER SAFETY AND RESULT IN VESSELS WHICH ARE MORE POLLUTION RESISTANT. KEY RECOMMENDATIONS INCLUDE THE FOLLOWING:

VESSEL TRAFFIC SYSTEMS. THERE SHOULD BE MANDATORY PARTICIPATION IN U.S. COAST GUARD ADVISORY VESSEL TRAFFIC SYSTEMS. EXPANSION OF FEDERAL VESSEL TRAFFIC SYSTEMS INTO ADDITIONAL PORT AND HARBOR AREAS MAY BE JUSTIFIED BY TRAFFIC DENSITY OR NAVIGATIONAL HAZARDS.

PILOTAGE. FEDERAL LEGISLATION SHOULD BE ENACTED TO ESTABLISH HIGHER QUALIFICATIONS AND IMPROVED ADMINISTRATIVE STANDARDS FOR ALL STATE PILOTS IN U.S. WATERS.

TUG ASSISTANCE. WHERE EXTRAORDINARY NAVIGATIONAL HAZARDS ARE DEEMED TO EXIST BY THE U.S. COAST GUARD, VESSELS SHOULD BE REQUIRED TO HAVE: (I) TUG ASSISTANCE, OR (II) TWIN SCREWS, OR (III) BOW THRUSTERS OR (IV) OTHER SUITABLE EQUIPMENT ENABLING ENHANCED INDEPENDENT MANEUVERING.

DRUGS AND ALCOHOL. U.S. COAST GUARD AUTHORITY SHOULD BE EXPANDED TO ALLOW FOR DRUG AND ALCOHOL TESTING AS A PART OF OFFICER LICENSING PROCEDURES. COMPANY POLICIES SHOULD BE ESTABLISHED TO DETERMINE SUBSTANCE ABUSE AND TO ENCOURAGE TREATMENT.

VESSEL CREW COMPLEMENT. INDUSTRY SHOULD CONTINUE TO SUPPORT THE U.S. COAST GUARD ROLE IN SETTING MANNING STANDARDS.

LICENSING, CERTIFICATION AND TRAINING OF MARINE PERSONNEL. THE INTERNATIONAL CONVENTION ON STANDARDS OF TRAINING AND CERTIFICATION OF WATCHKEEPERS (STCW) SHOULD BE RATIFIED BY THE U.S. GOVERNMENT. IN ADDITION, IMPROVEMENTS ARE NEEDED IN U.S. COAST GUARD TRAINING REQUIREMENTS FOR CARGO HANDLING AND BRIDGE MANAGEMENT.

AUTOMATIC PILOT. ALARM SYSTEMS FOR AUTOMATIC PILOTS SHOULD BE RETROFITTED ON ALL TANKERS.

SHIPBOARD OIL SPILL RESPONSE CAPABILITY. SHIP SPECIFIC OIL SPILL PREVENTION AND CONTROL CONTINGENCY PLANS SHOULD BE REQUIRED, BUT PRESENTLY EXISTING SHIPBOARD OIL SPILL RESPONSE EQUIPMENT IS NOT EFFECTIVE AND WOULD PRESENT SAFETY HAZARDS IN ITS DEPLOYMENT. RESEARCH IS RECOMMENDED TO INVESTIGATE FEASIBLE AND SAFE TECHNIQUES FOR ONBOARD RESPONSE.

VESSEL CONFIGURATION. THE MERITS OF FULL APPLICATION OF BALLAST SIDES, REDUCED TANK SIZE AND DOUBLE BOTTOM CONSTRUCTION SHOULD BE CAREFULLY STUDIED BY THE NATIONAL ACADEMY OF SCIENCES (OR ANOTHER INDEPENDENT BODY) WITH INDUSTRY INVOLVEMENT.

VESSEL SIZE. LIMITING THE SIZE OF VESSELS AT UNITED STATES PORTS WILL NOT ENHANCE ENVIRONMENTAL SAFETY BECAUSE OF THE ADVERSE IMPACT DOWNSIZING WOULD HAVE ON TANKER TRAFFIC.

3. RESEARCH: API RECOMMENDS AN OVERALL PROGRAM OF $30 MILLION TO $35 MILLION OVER FIVE YEARS. A PRELIMINARY ASSESSMENT OF THE RESEARCH AND DEVELOPMENT OPPORTUNITIES RELATED TO OIL SPILLS IDENTIFIED SPAN THE SPECTRUM FROM SCIENCE (E.G., BETTER UNDERSTANDING THE CHEMISTRY AND BIOLOGICAL EFFECTS OF SPILLED OIL

ON THE ENVIRONMENT) TO OPERATIONS (E.G., USE OF CONTAINMENT BOOMS IN HIGH SEAS). THE THRUST OF THE PROGRAM PROPOSED IS TO INITIATE WORK FIRST IN THOSE AREAS WHERE THE ASSESSMENT SUGGESTS THE GREATEST POTENTIAL BENEFITS.

SINCE THE BULK OF THE PROPOSED R&D PROGRAMS HAVE OPERATIONAL OBJECTIVES, THEY WILL BE MANAGED BY THE PETROLEUM INDUSTRY RESPONSE ORGANIZATION (PIRO). SOME FURTHER DISCUSSION AMONG PIRO, API AND THE U.S. DEPARTMENT OF THE INTERIOR WILL LIKELY BE NEEDED TO FINE TUNE THE R&D MANAGEMENT RESPONSIBILITIES TO AVOID DUPLICATION, GAPS OR INEFFICIENCIES.

IN CONCLUSION, THE INDUSTRY BELIEVES THAT THE API OIL SPILL TASK FORCE'S INITIATIVES WILL HELP PREPARE THIS NATION TO BETTER HANDLE OIL SPILLS IN A SWIFT AND EFFECTIVE MANNER.

THANK YOU. WE ARE PREPARED TO RESPOND TO ANY QUESTIONS YOU MAY HAVE.

[An advertisement appearing in the New York Times, July 13, 1989]

A blueprint for progress

Life in modern-day America too often appears a series of never-ending confrontations: conservative vs. liberal, landlord vs. tenant, populist vs. elitist, and, far too often, industry vs. environmentalist. In all of these examples—and especially in the last—government is viewed by both sides as a quasi-antagonist who happens to be the ultimate arbiter, with the muscle to enforce whatever decision eventually is reached.

But sometimes the stereotype is ignored, and out of disaster and controversy grow the insights that can produce genuine progress. This, we firmly believe, is precisely what occurred when the American Petroleum Institute Task Force on Oil Spills delivered its report recently.

The plan unveiled by the task force is intended to reach the best possible solution to long-term potential catastrophic problems, without rancor and with the cooperation of industry and government. The public also has a huge stake in oil-spill prevention and cleanup. The plan requires public understanding and support, and initial reactions have been positive.

As widely described in the news media, the task force offered a three-pronged program to prevent oil spills, establish a new mechanism to respond to catastrophic spills as quickly and efficiently as possible, and conduct research into new and better ways to clean them up. These new programs will supplement the nation's current efforts, which include numerous local oil spill response and cleanup organizations. Over the first five years, these new efforts will cost a quarter of a billion dollars.

At the heart of the new spill-fighting effort would be a Petroleum Industry Response Organization (PIRO), headquartered in Washington, D.C., and including five regional centers manned around the clock. Personnel in these centers would be ready to bring the latest in equipment to supplement local capability in dealing with major spills wherever tankers operate in U.S. waters. Each center would have the capability to respond to a spill of up to 200,000 barrels, and each would be ready to render assistance outside its immediate area in the unlikely event of an even larger spill.

The report also proposes changes in tanker operation and the training of crews, as well as in the type of equipment currently in use. Mandatory participation in Coast Guard advisory vessel traffic systems is recommended, as is the expansion of federal traffic systems into additional ports where traffic is heavy or navigational hazards exist. Mandatory use of tugs or equipment to improve ship maneuverability in dangerous areas is another recommendation. An independent body, such as the National Academy of Sciences, would be asked to determine whether double-sides and double-bottom construction should be part of any safety program.

But aside from these nuts-and-bolts proposals, the industry plan called for an important role to be played by government. The secretary of transportation, through the Coast Guard, in its enhanced role, would direct the cleanup resources provided by PIRO.

We feel the industry oil spill initiative breaks new ground in ways beyond its impact on the environment. Consider these points:

- An industry, aware that a problem exists, voluntarily undertakes the search for solutions—without overt government prodding, although the potential for federal regulation continues to exist.
- Government is made a partner in the proceedings—with a central role to play, in fact—*but isn't asked to provide financing.* The plan includes provisions for companies that receive oil by tanker to pay a per-barrel fee to cover the large costs involved.

Whether the secretary of transportation and the Coast Guard choose to become involved, of course, is up to them. Either way, the industry intends to begin implementing its plan, although we believe it would be far more effective with their participation.

If the program offers a model for a less contentious, less acrimonious way to solve social problems, its importance could range well beyond oil spills and their aftermaths. It could then serve as a true blueprint for progress, and a new manifestation of a unified national will, and a commitment to cooperation.

(For further information, write to the American Petroleum Institute, 1220 L Street, N.W., Washington, D.C. 20005.)

Mobil